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Alliance News Network

Founded during the early decades of Human space exploration, the Alliance News Network was originally a low-profile news organization known mostly for a series of exposés on the First Contact War. With a focus on galaxy-wide reporting, the ANN opened bureaus on planets across known space, winning a few awards for excellence and earning a multi-species audience.

The Alliance News Network has never been funded by the Systems Alliance, despite what its name might imply. This led to regular confusion among those not in the know, although the network's recent high-profile sale to a media conglomerate made the ownership structure clearer.

The new management has opted for a more sensational approach. This is particularly obvious from changes to its roster of reporters, with a few of the network's luminaries retiring or joining other news organizations. The network's increasingly lurid programming has gained wide attention as well as sorely needed ratings—all the proof that management needed to validate its course. Nonetheless, ANN insists that integrity and credibility are inviolable standards in the newsroom.

Battlespace is among ANN's highest rated programs, known for a particularly titillating breed of reporting. Among the show's most noteworthy segments are Diana Allers's dispatches from the front lines. The network calls her reports "gritty and realistic," but she has been criticized for her unabashed focus on the violence of war. Even critics of Allers agree, however, that despite her often graphic visuals, the facts she reports are just that—facts.

The Alpha Relay

Discovering the age of a mass relay is not an easy task. Relays can shield themselves to preserve their integrity down to the quantum level, so taking a sample for analysis proves nigh impossible.

Relays also maintain self-cleaning cycles, wiping away potential evidence, though damage or dormancy can cause this cycle to break down (such as in the case of the Charon Relay, which became covered in ice).

A breakthrough was recently made by Dr. Amanda Kenson, who revisited old methods of dating the relays by testing dust trapped in their gravity wells. By comparing the relative velocity of relays to that of the stars they orbit as well as the composition of the dust around dormant relays against the dust at known locations in their star systems, Kenson could create a timeline of when a relay passed through the dust. The result dates the relay back millions of years; some may even predate the Protheans.

Kenson concluded that the oldest known relay is in Batarian space. Dubbed "Alpha," it resides near the star Bahak and is unusual in its potential range and versatility. Alpha usually sends and receives mass at the range of a normal secondary relay, but if certain controls are adjusted, it becomes powered by an unprecedented amount of dark energy that could send cargo to sixteen other relays and even across a great distance to the Citadel. Hegemony authorities have kept this quiet, fearing retaliation from Council species who would assume hostile intent if they found a sudden new route into their space. It goes without saying that the Reapers have no such fear.

Argus Planet Scan Technology

The Argus provides a qualitative leap in planetary surface imaging. A proprietary technology of the Ayndroid Group, an RRD laboratory reportedly owned by Cerberus, this upgrade for Normandy's sensory array delivers superior long-range topographical scanning resolution and rendering speed.

By deploying an orbital multistatic grid of 100 radar-emitting micro-satellites, the Argus quickly delivers a global Digital Elevation Model (DEM) at 15 meters per pixel (mpp) resolution, vastly outclassing the Normandy's previous scanner peak performance of 27 mpp. Such imaging quality provides superior defense intelligence, and at a speed warranted by the dangers of combat.

At slower scanning and rendering speed, the Argus can resolve down to an astonishing 0.001 millimeter per pixel - ideal for geological and biological prospecting, archaeological research, and long-term security surveillance. By employing such a massive multistatic grid of nearly-untraceable micro-emitters, the resilient Argus is virtually invulnerable to electronic countermeasures. The spherical geometry of the Argus grid also allows superior cross-sectioning of targets.

Armaments and Armor

Ablative Armor

A warship's kinetic barriers reduce the damage from solid objects, but can do nothing to block GARDIAN lasers, particle beams, and other forms of Directed Energy Weapon (DEW). The inner layer of warship protection consists of ablative armor plate designed to "boil away" when heated. The vaporized armor material scatters a DEW beam, rendering it ineffectual.

A scaffold was built around the interior pressure hull, with sheets of ablative armor hung from the structure. Ships typically have multiple layers of armor separated by empty baffles, spaces often used for cargo storage. Cruisers, which lack the internal space to fit dedicated fighter hangars, store the shipboard fighter complement in the baffles. It is not unknown for enlisted crew to build illicit alcohol distilleries in some obscure corner of the baffles, safe from prying eyes.

Arc Projector

"Laser-guided lightning" is how Cerberus operatives sum up this unusual weapon developed for use against synthetic enemies. It was created for field operatives who required an anti-Geth weapon but found omni-tools too complex to master or too hard to fire in the throes of an adrenaline rush.

To make it as simple as possible to shoot, the arc projector has a single trigger that takes the weapon through three operations. Depressing the first stage of the trigger causes the weapon to irradiate a target with a neutron-driven gamma-ray laser, which projects a beam invisible to the naked eye. This beam ionizes a thin corridor of air and any medium it passes through,

including most solid targets. When the second stage of the trigger is pulled, the projector generates a massive electrical impulse. This arcs down the ionized corridor, causing trauma to living targets through tissue burns and mechanical force (convulsions). Synthetic targets' circuits typically melt and fuse. By 22nd-century standards, the weapon's power needs are not large—it kills less through absolute amperage and more through sustaining the current for more microseconds than, say, an actual bolt of lightning.

It is during the third stage of the trigger pull that the projector's autotargeting system works to its full capacity. While it is still being projected during the electrical attack, the laser is reflected by movable optical fibers in the weapon's business end to "paint" additional targets designated by the gun's targeting computer. Given a new path of least resistance and surrounded by targets of differing potential, the electrical jolt then arcs from its first target to hit additional enemies. The effect on massed mechs is predictably devastating, as are the psychological effects on living foes, who suddenly discover that neither shields nor cover can keep them safe.

Blackstar

The Reaper weapon nicknamed "Blackstar" is so advanced that Alliance scientists can only offer speculation about how it works. The gun appears to exploit an element zero core and mass effect fields to fire gravitational singularities - micro black holes - that revert to their natural lethality when they impact a solid object. Researchers theorize that the blast tears apart the strong nuclear forces that hold the target's atoms together, resulting in a localized fusion reaction in light atoms and a fission reaction in heavy atoms. If that hypothesis is correct, the weapon alters nuclei, thus changing the chemical composition of the target. It destroys organic tissue, corrodes surviving armor, and leaves a visible trail of light-emitting particles.

Although some might argue that the Blackstar's single-launch capability makes it a liability, its capacity for utter destruction is essential when the user requires large-scale, instantaneous damage.

Collector Particle Beam

The Collectors‘ particle beam weapon is strangely crafted, possessing few moving pieces, lacking any obvious means for disassembly, and containing organics parts. The amount of energy required to create a destructive beam is several orders of magnitude more than the energy required to launch a physical projectile at high velocity via a mass effect field. Lacking any clear ammunition or fuel source, the device likely uses heat sinks or compensators to maintain firing during sustained combat. Current Cerberus efforts to understand the technology and replicate it have failed.

Disruptor Torpedoes

Disruptor torpedoes are powered projectiles with warheads that create random and unstable mass effect fields when triggered. These fields warp space-time in localized areas. The rapid, asymmetrical mass changes cause the target to rip itself apart.

In flight, torpedoes use a mass-increasing field, making them too huge for enemy kinetic barriers to repel. Because extra mass retards acceleration, torpedoes are easy prey for defensive GARDIAN weapons and must therefore be launched at extremely close range to be effective.

To prevent damage to the parent craft, torpedoes must be “cold-launched,” meaning they are released before their thrusters ignite. Aligning with its target’s trajectory, a fighter releases a torpedo and immediately thrusts away, while the torpedo continues to coast towards its target. After the fighter is clear (no more than a second after launch), the torpedo activates its mass field and thrusters away from the fighter and towards it [sic] target.

Torpedoes are the main anti-ship weapon used by fighters. Launched at point-blank range in “ripple-fire” waves, they are reminiscent of the ancient Calliope rocket artillery launchers (thus their popular nickname, “Callies”).

By saturating defensive GARDIAN systems with multiple targets, at least a few torpedoes will get through.

GARDIAN

A ships' **G**eneral **AR**ea **D**efense **I**ntegration **A**nti-spacecraft **N**etwork (GARDIAN) consists of anti-missile/anti-fighter laser turrets on the exterior hull. Because these are under computer control, the gunnery control officer needs to do little beyond turn the system on and designate targets as hostile.

Since lasers move at light speed, they cannot be dodged by anything moving at non-relativistic speeds. Unless the beam is aimed poorly, it will always hit its target. In the early stages of a battle, the GARDIAN fire is 100% accurate. It is not 100% lethal, but it doesn't have to be. Damaged fighters must break off for repairs.

Lasers are limited by diffraction. The beams "spread out", decreasing the energy density (watts per square meter) the weapon can place on a target. Any high-powered laser is a short-ranged weapon.

GARDIAN networks have another limitation: heat. Weapons-grade lasers require "cool-down" time, during which heat is transferred to sinks or radiators. As lasers fire, heat builds within them, reducing damage, range, and accuracy.

Fighters attack in swarms. The first few WILL be hit by GARDIAN, but as the battle continues, the effects of laser overheat allow the attacks to press ever closer to the ship. Constant use will burn out the laser.

GARDIAN lasers typically operate in infrared frequencies. Shorter frequencies would offer superior stopping power and range, but degradation of focal arrays and mirrors would make them expensive to maintain, and most prefer mechanical reliability over leading-edge performance where lives are concerned. Salarians, however, use near-ultraviolet frequency lasers with six times the range, believing that having additional time to shoot down

incoming missiles is more important.

Lasers are not blocked by the kinetic barriers of capital ships. However, the range of lasers limits their use to rare “knife fight”-range ship-to-ship combat.

Javelin

The Javelin is an experimental close-assault weapon fitted on a handful of newer Alliance warships. It consists of a “rack” of two or more disposable disruptor torpedo tubes bolted or magnetically “slung” on to a ship’s exterior armored hull. The torpedoes are fired on converging trajectories, and detonate in a precisely timed sequence that allows the dark energy emitted by their warheads to resonate and thereby magnify the resulting space-time warp effects.

Like fighter launched torpedoes, Javelins are “cold-launched” for safety reasons, though they use a different approach. Resembling old-fashioned submarine torpedo tubes, Javelin torpedoes come packed in individual sealed tubes filled with compressed, inert gas. Opening the front of the tube causes escaping gases to push the torpedo into the vacuum, releasing a puff of crystals around the mouth of the tube. After completely clearing the tube, the torpedo ignites its thrusters.

Javelin mounts are most often fitted on swift frigates, which expect to enter “knife fight” torpedo ranges as a matter of course. Javelins may also be fitted on heavier ships during short range engagements, such as trans-relay assaults. They are particularly useful in this role for dreadnoughts, which cannot lay their main guns on close-range targets.

As missile weapons, Javelins are subject to highly accurate defensive GARDIAN fire. They must be launched in large numbers and at short range to have any chance of hitting their target at all.

M-451 Firestorm

The M-451 Firestorm flamethrower is a product of Human ingenuity, ruthlessness, and industrial espionage. Its origin dates back to the 2160s, when Human colonists to new planets used flamethrowers to clear vegetation or ice. The fuels performed erratically on planets with extremely cold temperatures and differing air compositions from Earth. Realizing this could be a problem for military units, Systems Alliance intelligence operatives stole the Turian design for the “Hieras” flamethrower, a battle-tested workhorse that functioned in nearly every environment.

The result was the Firestorm, an anti-personnel and anti-armor flame unit that can accept a variety of liquid fuels. The Turian design used low-octane hydrocarbons thickened with dentra oil, which is taken from large marine animals similar to Earth’s whales. Humans then reverse-engineered a synthetic composite with almost identical properties that could be fabricated from heavy weapon fuel cells using an omni-tool.

The result is a sticky spray that burns at approximately 1,600 degrees Celsius, a less intense fire than plasma weapons but covering a significantly wider target area. Adding to the trauma is the choking smoke produced by the spray, and if the target’s armor is breached, the fires quickly consume the oxygen within. The Firestorm may not be the most efficient weapon in the Systems Alliance arsenal, but the sheer ugliness of how it kills ensures it is the most feared.

M-490 Blackstorm

The Blackstorm Gravitational Singularity Projector is the brainchild of weapon designer Eli Wegner, one of the few Humans who earned the privilege of serving with Asari commando units.

Overawed with how the Asari could create biotic singularities to pull opponents out from behind cover, he was determined to duplicate the feat

technologically.

Wegner's team created a weapon that could elevate target particles of matter to near-infinite mass, creating a gravitational singularity and drawing nearby objects inward for a short time. The rapidly-increasing gravity rips the target apart as it pulls the enemy closer to the singularity's center. When the mass effect field destabilizes and suddenly returns to normal mass, the result is explosive, and inflicts additional trauma on the enemy.

The weapon almost didn't happen. Early designs were dangerously unstable: the science for creating a hyper-dense mass effect field was well established, but projecting it at an adjustable range proved elusive. It was only after six years of development that the weapon finally qualified for Systems Alliance AIHW (Advanced Individual Heavy Weapon) trials. By that time, the singularity projector was rugged, reliable, and easy to use and repair. It immediately went to field tests in a small-scale desert war on Earth where the weapon terrified opponents who had never seen its effects before. The swirling sand and dust sucking soldiers into its center served as the centerpiece of many propaganda videos. In the resulting media coverage, the Wegner Arms M-490 GSP became known by its simpler nickname, the "black hole gun." His dream finally a reality, Wegner personally altered its name to the more marketable "Blackstorm."

M-560 Hydra

Before the introduction of the M-560 Hydra, missile launchers either focused on bringing down a single armored target or simultaneously neutralizing multiple unarmored opponents. With the Hydra, a soldier no longer needs to choose between the two.

The Hydra releases a barrage of miniature missiles, each guided by an independent homing system that seeks out exposed enemies. On impact, three shaped charges per missile explode in sequence. The first overloads the target's kinetic barriers before the second destroys its armor, clearing a path for the third warhead to detonate inside the target.

M-597 Ladon

The M-597 Ladon blends Human workmanship with Reaper technology to devastating effect.

After the battle of the Citadel, Alliance intelligence studied fragments of Reaper-based code recovered from Sovereign. One of the few systems successfully decoded was that of face and object recognition; it was notably advanced, but considered academic until recently.

Desperately preparing for the Reaper invasion, the Alliance has identified that this recognition software can make a weapon differentiate between friend and foe. The result is the Ladon, a missile system that can survey the field, assign a homing warhead to each hostile, and then deliver incendiary payloads without accidentally targeting allies. It is sophisticated enough to avoid friendly targets even if they've changed out of uniform or grown facial hair since the last time the weapon was fired. Its major shortcoming is the time it takes to process this information before every launch, delaying the attack for a few critical moments while the trigger is held down.

The antipersonnel capability of the Ladon is fearsome, but the mythology Alliance soldiers have created around it makes it a contender for "most hated weapon." The targeting display system was adapted so quickly that alien alphanumeric characters are still visible around the edges, a constant reminder that it is partially of Reaper origin. Rumors abound that a Ladon can indoctrinate its owner if the soldier sleeps next to it or that it will hit friendly targets the first time it's used in the field against Reaper creatures. More than one Alliance unit has left Ladons at the bottom of a supply crate before heading on a mission, proof that superstition survives even in this advanced age.

M-622 Avalanche

Still in its experimental stages, the M-622 Avalanche generates a Bose-Einstein condensate within a mass effect bubble which dissipates on impact, violently spraying the condensate outward and coating the target in a near-absolute-zero superfluid.

The Avalanche is unreliable, at times merely coating its target with ice, defacing exposed skin and freezing armor joints. Such low temperatures cause great damage to electronics like kinetic barrier emitters, which sometimes leads to total systems failure. At the other extreme, the Avalanche freezes flesh and bone, causing massive trauma as blood vessels constrict and frozen blood expands. Occasionally such iced tissue shatters.

M-920 Cain

The M-920 Cain is a portable particle accelerator surrounding an array of dust-form element zero chambers. By subjecting its eezo chambers to extreme positive and negative currents fueled by antimatter reactions, the weapon projects mass effect fields that shear away at the target. The fields warp ambient materials with such explosive force that the impact produces a mushroom cloud. This has led Alliance marines to call the Cain a “nuke gun,” though its detonations do not in fact produce fallout.

The M-920 uses graphite rods as neutron moderators, but they require frequent replacement to sustain power. Fortunately, the omni-tool can refabricate most heavy weapon ammunition into graphite rods. The amount of charge-up time is understandable as the weapon is a juggernaut capable of unstoppable destructive power.

ML-77 Missile Launcher

Based on existing technology, the ML-77 is a rapid-fire missile launcher using seeking projectiles. Each projectile features a friend-or-foe recognition system, ensuring it will find a hostile target even if the user’s aim is not

completely accurate.

The weapon excels at taking out snipers and other entrenched enemies in dense urban environments. This makes it popular with mercenary groups, particularly the Blue Suns. Missile launchers have been appearing with increasing frequency in the Terminus Systems, but their point of manufacture is unknown. Legal duplication of missile launchers is difficult due to Fabrication Rights Management (FRM) technology.

Mass Accelerators

Mass accelerators propel solid metal slugs via electromagnetic attraction and repulsion. A slug lightened by a mass effect field can be accelerated to extremely high speeds, permitting previously unattainable projectile velocities.

The primary determinant of a mass accelerator's destructive power is length. The longer the barrel, the longer the slug can be accelerated, the higher the slug's final velocity, and therefore the greater its kinetic impact. Slugs are designed to squash or shatter on impact, increasing the energy they transfer to its target. Without collapsibility, slugs would punch through their targets while inflicting only minimal damage.

Rather than being mounted on the exterior, starship guns are housed inside hulls and visible only as gun portholes from outside.

A ship's main gun is a large spinal-mount weapon running 90% of the hull's length. While possessing destructive power equal to that of tactical nuclear weapons, main guns are difficult to aim. Because ships must be able to point their bows almost directly at their targets, main guns are best used for long-range "bombardment" fire.

Approximately 40% of the hull's width, broadside guns inflict less damage and can be mounted with greater numbers and more flexibility. The modern Human Kilimanjaro-class dreadnoughts mount three decks with 26 broadside

accelerators apiece for a total salvo weight of 78 slugs per side, firing once every two seconds.

However, mass accelerators produce recoil equal to their impact energy. While the mass effect fields suspending the rounds mitigate the recoil, recoil shock can still rattle crews and damage systems.

Spitfires

Like the Geth plasma shotgun, the Spitfire is not a true energy weapon. Instead, the minigun magnetically flings clusters of superconducting toroids. These donut-shaped projectiles are designed to shatter upon impact, arcing electricity between the fragments and flash-converting them to plasma. The gun’s punishing, automatic blasts impact with the heat of a cutting torch.

The weapon’s stopping power has garnered the attention of both Alliance and Quarian intelligence, who theorize that the Spitfire may have been designed to destroy other Geth. Enough Spitfires have been found in the field to suggest that the weapon is out of the prototyping stage, and that a schism among synthetics may have forced them into production.

Artifacts

The Citadel Council has called for the immediate donation of Prothean artifacts to bolster the war effort, primarily items of Reaper origin and recordings of their attacks.

The ExoGeni Corporation set an example by donating a store of newly discovered paleotechnology and releasing the data archives of deep-space research colonies destroyed by the Reapers. Several private collectors have since stepped forward to donate the entirety of their collections.

But despite an offer of amnesty for anyone concealing such artifacts, not everyone has responded as the Council hoped. Several artifacts have been found in obscure underground markets on safe-haven worlds, presumably sold by newly arrived refugees who needed funds to survive.

Reports say that smugglers continue to sell stolen artifacts, and armed raids on archeological sites have rendered even legal operations extremely hazardous. After several reports of mercenary groups turning on the archeologists who hired them, Elanus Risk Control Services began to offer security details for archeological sites at considerably reduced rates.

Asari

The Asari were the first species to discover the Citadel. When the Salarians arrived, it was the Asari who proposed the establishment of the Citadel Council to maintain peace throughout the galaxy. Since then, the Asari have served as the mediators and centrists of the Council.

An all-female race, the Asari reproduce through a form of parthenogenesis. They can attune their nervous system to that of another individual of any gender, and of any species, to reproduce. This capability has led to unseemly and inaccurate rumors about Asari promiscuity.

Asari can live for over 1,000 years, passing through three stages of life. In the Maiden stage, they wander restlessly, seeking new knowledge and experience. When the Matron stage begins, they "meld" with interesting partners to produce their offspring. This ends when they reach the Matriarch stage, where they assume the roles of leaders and councilors.

Ardat-Yakshi

Ardat-Yakshi ("demon of the night winds") are Asari suffering from a genetic disorder preventing conventional melding of nervous systems during mating. Instead, Ardat-Yakshi electrochemically ravage their partners' nervous systems, in extreme cases leaving victims as vegetative invalids or corpses. Asari psychologists regard this incapacity for mental fusion as preventing the development of empathy, leading to psychopathy. There is no known cure.

The disorder generally begins in infancy, reaching full pathology during Maiden adolescent sexual development. While seductive and sexually-driven as other Asari, Ardat-Yakshi are congenitally sterile.

Ancient Asari mythology held Ardat-Yakshi as gods of destruction, depicting them as villains of countless legends and as the anti-heroes of numerous

Asari epics.

Contrary to popular belief, Ardat-Yakshi are neither extremely rare (around one per cent of Asari dwell on the AY spectrum), nor are they all murderers. Most cultivate and discard countless exploitative or abusive relationships during their legally marginal lives. Despite rumors of Ardat-Yakshi syndicates, by nature Ardat-Yakshi are incapable of long-term cooperation.

As a disproportionately wealthy species, Asari employ their economic reach and media ownership to hide the AY pathology from the galactic community, placing most Ardat-Yakshi in monitored work programs or seclusion. Only the most aggressive cases are sentenced to sanitaria and prisons or to the execution lists of justicars.

Biology

Asari have a robust cellular regenerative system. While they do not heal faster than other species, Asari are known to reach 1,000 years of age.

Although Asari have one gender, they are not asexual. An Asari provides two copies of her own genes to her offspring. The second set is altered in a unique process called melding.

During melding, an Asari consciously attunes her nervous system to her partner's, sending and receiving electrical impulses directly through the skin. The partner can be another Asari, or an alien of either gender. Effectively, the Asari and her partner briefly become one unified nervous system.

This unique means of reproduction is the reason Asari are talented biotics. Their evolved ability to consciously control nerve impulses is very similar to biotic training. Asari believe that their offspring acquire the best qualities of the "father" from the melded genes, but evidence is anecdotal.

Asari pass through three climacteric life stages, marked by biochemical and physiological changes. The Maiden stage begins at birth and is marked by the

drive to explore and experience. Most young Asari are curious and restless.

The Matron stage of life begins around the age of 350, though it can be triggered earlier if the individual melds frequently. This period is marked by a desire to settle in one area and raise children.

The Matriarch stage begins around 700, or earlier if the individual melds rarely. Matriarchs become active in their community as sages and councilors, dispensing wisdom from centuries of experience.

While each stage of life is marked by strong biological tendencies, individuals do make unexpected life choices. For example, there are Maidens who stay close to home rather than explore, Matrons who would rather work than build a family, and Matriarchs who have no interest in community affairs.

Culture

Because of their long lifespan, Asari tend to have a “long view” not common in other races. When they encounter a new species or situation, the Asari are more comfortable with an extended period of passive observation and study than immediate action. They are unfazed that some of their investments or decisions may not pay off for decades or centuries. Matriarchs can seem to make incomprehensible decisions, but their insight is evident when their carefully-laid plans come to fruition. In interstellar relations, this long view manifests in an unspoken policy of centrism. The Asari instinctively seek to maintain stable balances of economic, political, and military power.

Traditionally, Asari spread their influence through cultural domination and intellectual superiority. They invite new species of advanced development to join the galactic community, knowing that their ideals and beliefs will inevitably influence the existing culture.

Government

The Asari came late to the concept of world government. For centuries, their homeworld of Thessia was dotted with loose confederacies of great republican cities. The closest Earthly equivalent would be the ancient Mediterranean city-states. Since the Asari culture values consensus and accommodation, there was little impetus to form larger principalities. Rather than hoard resources, the Asari bartered freely. Rather than attack one another over differing philosophies, they sought to understand one another.

Only in the information age did the city-states grow close. Communication over internet evolved into an “electronic democracy”. Asari have no politicians or elections, but a free-wheeling, all-inclusive legislature that citizens can participate in at will. Policy debates take place at all hours of the day, in official chat rooms and forums moderated by specially-programmed virtual intelligences. All aspects of policy are opened to plebiscite at any time. In any given debate, the Asari tend to lend the most credence to the opinions of any Matriarchs present, nearly always deferring to the experience of these millennia-old “wise women”.

Achieving consensus through public debate may take too long in a crisis. In cases where prompt, decisive action is required, the Asari defer to the wisdom of local Matriarchs.

Justicars

Despite the refinement and sophistication of Asari culture, criminality remains a fact of life. The Asari solution to the most vicious and destructive criminal element is the Justicar Order.

Justicars are an Asari class of virtually untouchable, extrajudicial executioners operating almost exclusively within Asari territory. In the last decade alone, Justicars have smashed dozens of criminal rings inside Asari territory, operated by Asari and non-Asari alike. Their methods range from

subtle where possible, to brutal where necessary.

Trained for extreme-strength, biotic capacity, resourcefulness, asceticism, and ruthlessness, the fanatical justicars are romanticized and feared throughout Asari society.

Although justicars generally work alone, their effectiveness arises from the huge body of knowledge they can access. Any Asari who enters the ranks of justicars has already spent centuries in a combination of criminal investigation, military intelligence, and combat experience; the collective body of justicar knowledge exceeds even that of the Spectres.

Justicars tend to be independent, requiring little help but also scorning it since such advanced skill and experience usually travels with a powerful ego. The conflicts presented by such arrogance prompted the Justicar Order to develop the Oaths of Subsumation. The oaths pledge protection of the innocent, the punishment of the guilty, and defence of common law and the norms of Asari society. The effect of the Oaths is conservative, ensuring that justicars respect the existing distribution of Asari power rather than staging a coup to rearrange society according to justicar satisfation. Nevertheless, the possibility of such an attack is a source of anxiety—and counter-intelligence—among the Asari elite.

Of all the pledges, the Third Oath of Subsumation is sworn the least of any of the oaths. Requiring a Justicar to swear loyalty that overrides the dictates of even the Justicar Code, the Third Oath is usually invoked in matters where even the black-or-white thinking of justicars is forced to concede the existence of gray.

Military Doctrine

The Asari military resembles a collection of tribal warrior bands with no national structure. Each community organizes its own unit as the locals see fit, and elect a leader to command them.

Units from populous cities are large and well-equipped, while those from farm villages may only be a few women with small arms. There is no uniform; everyone wears what they like. The Asari military is not an irregular militia, however; those who serve are full-time professionals.

The average Asari huntress is in the maiden stage of her life and has devoted 20-30 years to studying the martial arts. Asari choose to be warriors at a young age, and their education from that point is dedicated to sharpening the mind and body for that sole purpose. When they retire, they possess an alarming proficiency for killing.

Huntresses fight individually or in pairs, depending on the tactics preferred in their town. One-on-one, a huntress is practically unbeatable, possessing profound tactical insight, a hunter's eye, and a dancer's grace and alacrity. Biotics are common enough that some capability is a requirement to be trained as a huntress; lack of biotic talent excludes a young Asari from military service.

While fluid and mobile, Asari can't stand up in a firestorm the way a Krogan, Turian, or Human could. Since their units are small and typically lack heavy armor and support weapons, they are almost incapable of fighting a conventional war, particularly one of a defensive nature. So Asari units typically undertake special operations missions. Like an army of ninja, they are adept at ambush, infiltration, and assassination, demoralizing and defeating their enemies through intense, focused guerrilla strikes.

As a popular Turian saying puts it, "The Asari are the finest warriors in the galaxy. Fortunately, there are not many of them."

Religion

The pantheistic mainstream Asari religion is Siari, which translates roughly as "All is one." The faithful agree on certain core truths: the universe is a consciousness, every life within it is an aspect of the greater whole, and death is a merging of one's spiritual energy back into the greater universal

consciousness. Siarists don’t specifically believe in reincarnation; they believe that spiritual energy returned to the universal consciousness upon death will eventually be used to fill new mortal vessels.

Siari became popular after the Asari left their homeworld and discovered their ability to “meld” with nearly any form of life. This ability is seen as proof that all life is fundamentally similar. Siari priestesses see their role as promoting unity between the disparate shards of the universe’s awareness.

Before the rise of Siari pantheism, Asari religions were as diverse as their political opinions. The strongest survivor of those days is the monotheistic religion worshiping the goddess Athame.

Like the Asari, the goddess cycles through the triple aspects of maiden, matron, and matriarch.

Ascension

Written by Human author Drew Karpyshyn, the popular military-historical novel Ascension focuses on several lives warped or destroyed by the Human-survivalist cult Cerberus. Following the Citadel attack of 2182 [sic] and the accelerated rise of Human influence in the galaxy, Cerberus instituted Ascension, a secret biotics program aimed at producing a super-Human warrior. Biotics prodigy Gillian Grayson, a 12-year-old autistic girl, suffered for the sins of her father, a secret Cerberus operative and red sand addict. Paul Grayson was ensnared in a web of criminality involving a Quarian traitor and extending to Saren Arterius, the Geth, and a terminal threat to the Quarian flotilla. Having fled to the Terminus Systems with his daughter after exposure of Cerberus's link to Ascension, Grayson was pursued by Gillian's teacher, scientist Kahlee Sanders, initiating a chain of tragedies that demonstrated Cerberus's nearly-unlimited power and boundless ambition.

Background - Colonist

Ruthless

You were raised on Mindoir on the fringes of the Attican Traverse. When you were sixteen, the colony was raided by slavers. The entire settlement was razed and your friends and family were slaughtered. A passing Alliance patrol rescued you, but all you loved was destroyed.

You enlisted with the Alliance military, joining the long and bloody campaign to rid the Skyllian Verge of Batarian slavers and other criminal elements. The final battle came when Alliance forces laid siege to Torfan, a slaver base built miles below the surface of a desolate moon. The superiority of the Human fleet was wasted in the assault on the underground bunker, but you led a corps of elite ground troops into the heart of the enemy base.

Nearly three-quarters of your own squad perished in the vicious close-quarters fighting, a cost you were willing to pay to make sure not a single slaver made it out of Torfan alive.

Sole Survivor

You were raised on Mindoir on the fringes of the Attican Traverse. When you were sixteen, the colony was raided by slavers. The entire settlement was razed and your friends and family were slaughtered. A passing Alliance patrol rescued you, but all you loved was destroyed.

You enlisted with the Alliance military, eventually volunteering to go to Akuze, a colony that had mysteriously dropped out of contact. As soon as it arrived on the surface, your patrol was attacked by thresher maws - mindless abominations of teeth and tentacles that rose up from beneath the earth.

Constant gunfire couldn’t drown out the shrieks of your fellow soldiers as they were dragged down to a gruesome death.

Fifty marines died on Akuze; you were the only one to make it back to the landing zone alive. A monument on the planet commemorates the massacre, a grim reminder of the price Humanity must pay as they spread throughout the stars.

War Hero

You were raised on Mindoir on the fringes of the Attican Traverse. When you were sixteen, the colony was raided by slavers. The entire settlement was razed and your friends and family were slaughtered. A passing Alliance patrol rescued you, but all you loved was destroyed.

You enlisted with the Alliance military and were posted at Elysium. You were there during the Skyllian Blitz, an attack on the colony by a massive coalition force of slavers, crime syndicates, and Batarian warlords.

You rallied the civilian inhabitants, leading them in their desperate fight to hold off the invaders. When enemy troops broke through the colony’s defenses, you single-handedly held them off and sealed the breach. After hours of brutal fighting, reinforcements finally arrived and the enemy broke ranks and fled. Because of your actions, Elysium was saved, and you are regarded throughout the Alliance as a true hero.

Background - Earthborn

Ruthless

You were born on Earth, but you never knew your parents. A child of the streets, you learned to live by your wits and guts, surviving in the hidden underbelly of the megatropolises of Humanity's home world.

Eager to find a better life, you joined the Alliance military when you came of age. You were assigned to the campaign to rid the Skyllian Verge of Batarian slavers and other criminal elements. The final battle came when Alliance forces laid siege to Torfan, a slaver base built miles below the surface of a desolate moon. The superiority of the Human fleet was wasted in the assault on the underground bunker, but you led a corps of elite ground troops into the heart of the enemy base.

Nearly three-quarters of your own squad perished in the vicious close-quarters fighting, a cost you were willing to pay to make sure not a single slaver made it out of Torfan alive.

Sole Survivor

You were born on Earth, but you never knew your parents. A child of the streets, you learned to live by your wits and guts, surviving in the hidden underbelly of the megatropolises of Humanity's homeworld.

Eager to find a better life, you joined the Alliance military when you came of age. You volunteered for an expedition to Akuze: a lush world on the outskirts of Alliance space that had suddenly dropped out of contact. Arriving on the surface your patrol found the settlement intact, but no survivors.

At nightfall, the thresher maws struck - mindless abominations of teeth and tentacles that rose up from beneath the earth. Constant gunfire couldn't drown out the shrieks of your fellow soldiers as they were dragged down to a gruesome death.

Fifty marines died on Akuze; you were the only one to make it back to the landing zone alive. A monument on the planet commemorates the massacre, a grim reminder of the price Humanity must pay as they spread throughout the stars.

War Hero

You were born on Earth, but you never knew your parents. A child of the streets, you learned to live by your wits and guts, surviving in the hidden underbelly of the megatropolises of Humanity's homeworld.

Eager to find a better life, you joined the Alliance military when you came of age. You were on shore leave at Elysium when the first wave of the Skyllian Blitz struck. A massive coalition force of slavers, crime syndicates, and Batarian warlords attacked the Human colony, determined to wipe it out.

You rallied the civilian inhabitants, leading them in their desperate fight to hold off the invaders. When enemy troops broke through the colony's defenses, you single-handedly held them off and sealed the breach. After hours of brutal fighting, reinforcements finally arrived and the enemy broke ranks and fled. Because of your actions, Elysium was saved, and you are regarded throughout the Alliance as a true hero.

Background - Spacer

Ruthless

Born into a naval family, you spent your childhood on ships and stations. You moved from posting to posting as your parents were reassigned, and it was only natural you would follow in their footsteps by enlisting in the Alliance military when you came of age.

After several years of service, you joined the campaign to rid the Skyllian Verge of Batarian slavers and other criminal elements. The final battle came when Alliance forces laid siege to Torfan, a slaver base built miles below the surface of a desolate moon. The superiority of the Human fleet was wasted in the assault on the underground bunker, but you led a corps of elite ground troops into the heart of the enemy base.

Nearly three-quarters of your own squad perished in the vicious close-quarters fighting… a cost you were willing to pay to make sure not a single slaver made it out of Torfan alive.

Sole Survivor

Both of your parents were in the Alliance military. Your childhood was spent on ships and stations as they transferred from posting to posting. Following in your parents' footsteps, you enlisted at the age of eighteen.

One of your first missions was an expedition to investigate Akuze, a lush world on the outskirts of Alliance space that had suddenly dropped out of contact. Arriving on the surface, your patrol found the settlement intact, but there were no survivors.

At nightfall, the thresher maws struck - mindless abominations of teeth and

tentacles that rose from beneath the earth. Constant gunfire couldn't drown out the shrieks of your fellow soldiers as they were dragged down to a gruesome death.

Fifty marines died on Akuze. You were the only one to make it back to the landing zone alive. A monument on the planet commemorates the massacre, a grim reminder of the price Humanity must pay as they spread throughout the stars.

War Hero

Born into a naval family, you spent your childhood on ships and stations. You moved from posting to posting as your parents were reassigned. You enlisted in the Alliance military yourself on the day you turned eighteen.

You were on shore leave at Elysium when the first wave of the Skyllian Blitz struck. A massive coalition force of slavers, crime syndicates, and Batarian warlords attacked the Human colony, determined to wipe it out.

You rallied the civilian inhabitants, leading them in their desperate fight to hold off the invaders. When enemy troops broke through the colony's defenses, you single-handedly held them off and sealed the breach.

After hours of brutal fighting, reinforcements finally arrived and the enemy broke ranks and fled. Because of your actions, Elysium was saved, and you are regarded throughout the Alliance as a true hero.

Batarians

In the early 2160s, the Alliance began aggressive colonization of worlds in the Skyllian Verge, much to the dismay of the Batarians who had been developing the region for several decades. In 2171, the Batarians petitioned the Council to declare the Verge a “zone of Batarian interest”. The Council refused, however, declaring unsettled worlds in the region open to Human colonization.

In protest, the Batarians closed their Citadel embassy and severed official diplomatic relations with the Council, effectively becoming a rogue state. They instigated a proxy war in the Verge by funneling money and weapons to criminal organizations, urging them to strike at Human colonies.

Hostilities peaked with the Skyllian Blitz of 2176, an attack on the Human capital of Elysium by Batarian-funded pirates and slavers. In 2178, the Alliance retaliated with a crushing assault on the moon of Torfan, long used as a staging base by Batarian-backed criminals. In the aftermath, the Batarians retreated into their own systems, and are now rarely seen in Citadel space.

Biotics

Biotics is the ability of rare individuals to manipulate dark energy and create mass effect fields through the use of electrical impulses from the brain. Intense training and surgically-implanted amplifiers are necessary for a biotic to produce mass effect fields powerful enough for practical use. The relative strength of biotic abilities varies greatly among species and with each individual.

There are three branches of biotics:

- **Telekinesis** uses mass-lowering fields to levitate or impel objects.
- Mass-raising **Kinetic Fields** are used to block or pin objects.
- **Distortion** uses rapidly shifting mass fields to shred objects.

Most organic species are capable of developing biotic abilities, though there are risks involved.

Biotics are the result of in-utero exposure to element zero. This usually causes fatal cancers in the victim, but in rare cases it coalesces into nodules within the fetus's developing nervous system.

Biotic Amps

Biotics manipulate mass effect fields using dozens of element zero nodules within their nervous system that react to electric stimuli from the brain. Amplifiers allow biotics to synchronize the nodules so they can form fields large and strong enough for practical use. Amplifiers can improve a specific discipline or talent.

An implant is surgically-embedded interface port into which amps are "plugged in". On Humans, the implant is usually placed at the base of the skull for convenient access, though the user must be careful to keep it free of contaminants.

Implant ports can fit a variety of amps, and there is a growing market for modifications and add-ons. The finest quality implants and amps are manufactured by Asari artisans, but the Alliance's L3 implants - first deployed in 2170 - are a significant step forward.

Life as a Biotic

Biotics possess extraordinary abilities, but they must live with minor inconveniences. The most obvious issue is getting adequate nutrition. Creating biotic mass effects takes such a toll on metabolism that active biotics develop ravenous appetites. The standard Alliance combat ration for a soldier is 3000 calories per day; biotics are given 4500, as well as a canteen of potent energy drink for quick refreshment after hard combat.

Another issue is electric charge. Electricity accumulated in starship drive cores must be discharged, and so must the electricity in a biotic user. Biotics are prone to small static discharges when they touch metal.

Unfortunately, Human biotics also face suspicion and persecution, beginning with the popular misconception that they can read and control minds. Biotics symbolize the Dehumanization of mankind to people philosophically or religiously opposed to gene modification and cybernetics.

Militaries are the only organizations that always welcome biotics, offering them huge recruitment incentives.

Training

Biotic implants and amplifiers only provide the potential to create coherent mass effect fields. Whether biotics can actually do so is largely determined by their training.

Biotics must develop conscious control over their nervous systems, sending

specific electrical impulses to the element zero nodules embedded in their nerves. They are taught to use their implants and amps with biofeedback devices and physical mnemonics. Specific gestures or muscle movements fire the proper sequence of nerves to activate a certain skill.

Conatix Industries pioneered biotic training with the Biotic Acclimation and Temperance Training program. Although BAaT did not achieve the desired results, many techniques taught are still used today.

Many Human think tanks are trying to develop some form of biotic super soldier. Most are benign efforts to create more flexible troops. Others, less publicly known, are unapologetic attempts to create Nietzschean supermen.

Body Armor

Modern combat hard-suits have a “triple canopy” of protection: , armor, and self-repair.

The outermost layer is created through kinetic barrier emitters, which detect objects incoming at a high rate of speed and generate deflecting “shields” provided they have enough energy in their power cells.

If a bullet or other incoming object gets past the barrier, it contends with the more traditional body armor. A sealed suit of non-porous ballistic cloth provides kinetic and environmental protection, reinforced by lightweight composite ceramic plates in areas that either don’t need to flex or require additional coverage, such as the chest and head. When the armor is hit by directed energy weapons, the plates boil away or ablate rather than burning the wearer.

The last level of protection is provided by the suit’s microframe computers, whose input detectors are woven throughout the fabric. These manage the self-healing system, which finds rents in the fabric and, assuming any such tear would wound the flesh underneath, seals the area off with sterile, non-conductive medi-gel. This stanches minor wounds and plugs holes in the suit that could prove fatal in vacuum or toxic environments. Soldiers are not always fond of the “squish skin” that oozes gel on them at a moment’s notice, but fatalities have dropped sharply since the system was implemented.

Cerberus

Immediately following the First Contact War, an anonymous extranet manifesto warned that an alien attempt at Human genocide was inevitable. The manifesto called for an army - a Cerberus to guard against invasion through the Charon relay.

Derided as “survivalist rhetoric written by an illusive man”, the manifesto and its anonymous author soon fell off the media radar. But in 2165, terrorists stole antimatter from the SSV *Geneva*, the sole figure arrested named his sponsor “Cerberus”. Throughout the 2160s and 2170s, alleged Cerberus agents assassinated politicians, sabotaged starships bearing eezo, and conducted nightmarish experiments on aliens and Humans. Denounced as Human-supremacist, Cerberus calls itself Human-survivalist.

Counter-terror experts speculate Cerberus may have changed leadership with its recent shift to stockpiling ships, agents, and weapons. Whether “he”, “she”, or “they”, the Illusive Man hides his finances behind shell companies. Few doubt he will kill anyone attempting to expose him.

In recent years, the pro-Human syndicate known as Cerberus has seen its influence grow galaxy-wide. The largely untraceable organization now includes private intelligence agencies, biotics laboratories, research facilities, and the lucrative corporations that provide a front for it all.

Cerberus’s charismatic leader, known only as the lllusive Man, drives the organization’s philosophy and interests. The level of secrecy he maintains puts professional intelligence agencies to shame.

As Cerberus grows, so too does public distrust of the organization. Some commentators have remarked that Cerberus is not so much pro-Human as it is antialien. Others question the blind loyalty of its employees.

Cerberus Occupation of Omega

The Illusive Man's plan to capture Omega was elegantly wrought. Experimental specimens called adjutants "escaped" from a Cerberus facility beyond the Omega-4 mass relay, took command of a Cerberus convoy, and arrived on Omega to wreak havoc. With more adjutants incoming, Cerberus reached out to Aria T'Loak, claiming it needed her help to stop its wayward test subjects. Reluctantly offering her own forces in an alliance, Aria joined Cerberus's General Oleg Petrovsky aboard his ship to oversee the battle. When the adjutants overran the Cerberus-Omega fleet, Petrovsky and Aria escaped through the Omega-4 relay.

However, Petrovsky's subordinate Colonel Raymond Ashe had remained behind on Omega to take control of the station's defenses while Cerberus reinforcements approached. Announcing that it was protecting the galaxy from the adjutant threat, Cerberus seized Omega, giving the Illusive Man full control of the Omega-4 relay and the space beyond. Without Aria to keep them in line, the various criminal and mercenary factions on the station erupted, fighting both Cerberus ground troops and each other.

Meanwhile, Aria was taken captive by General Petrovsky. Realizing that the adjutants had simply been a ruse to capture Omega, Aria managed to escape back to Omega, slipping away into its underbelly to organize a resistance force.

Eventually, Petrovsky ordered the Cerberus forces to evacuate the station, but this was yet another ruse—this time to lure Aria out of hiding. With his troops out of harm's way, Petrovsky summoned a massive Cerberus fleet and presented Aria with an ultimatum: leave Omega or lose it. Petrovsky threatened to destroy the station rather than lose control, and with no alternative, Aria left, vowing she would return to claim Omega and take her revenge.

Adjutant

"Adjutant" is the Cerberus codename for the experimental subjects created at a secret facility beyond the Omega-4 relay. The creatures are based on

Reaper technology, and the adjutants encountered on Omega have the ability to infect any life-form to create a new adjutant.

Adjutants are deadly pack hunters. They initially remain hidden, observing potential victims and distracting them with subtle whispers. When they select a target, adjutants ambush them with charged projectiles that create a violently unstable mass effect field that causes severe disorientation and renders the target helpless. Enhanced muscle tissue gives adjutants the ability to leap surprising distances, allowing them to close in and infect their target quickly.

The baseline form of the being does not match any known species. Xenobiologists suspect that Reapers may have originally created and implemented the virus several cycles before the Prothean extinction and that it still carries genetic traces of its original host. If this is true, then like the Collectors, adjutants are a glimpse into the distant past at a species whose very existence - and struggle against the Reapers - has long been forgotten.

Atlas

With the Atlas, Cerberus's research arm has combined the deadly armor and firepower of a YMIR mech with the tactical superiority of a trained Human pilot. An element zero core allows the Atlas to be air-dropped onto a battlefield with minimal impact damage. Its thick armor includes a robust transparent canopy made from a polycrystalline composite proprietary to Cerberus. Alliance engineers hypothesize that the material is some kind of synthetic sapphire composed with interlayers to resist cracking and thermal damage.

Although the Atlas is somewhat unwieldy in the field, its antipersonnel machine guns and ability to shrug off damage from anything short of a heavy weapon makes it a fearsome opponent. Heavy loss of life is to be expected in any unprepared encounter with this unit.

Centurion

Centurions are Cerberus's front-line tacticians. They are meant to enact the lllusive Man's strategic goals, although it is clear that they have leeway to adapt as an encounter develops.

The only useful intelligence that the Alliance has gathered on centurions relates to their armament. Each centurion carries an M-96 Mattock heavy rifle modified to launch smoke grenades, leaving enemies vulnerable to crossfire.

Engineer

Cerberus combat engineers are specialized support units that assist primary forces while staying out of the line of fire. They wear lighter armor than the typical Cerberus combatant, using a modified mesh that allows greater mobility. Under cover and out of sight, engineers focus on setting up and maintaining turrets as well as repairing mechanical units or armored allies. When confronted, they return fire only for as long as it takes them to find cover again and let front-line combat personnel take over.

Although engineers are not particularly dangerous on their own, the Alliance specifically warns troops to remain alert for turrets, which can mow down an entire squad while the engineer escapes.

General Oleg Petrovsky

Military strategist and classical scholar General Oleg Petrovsky is one of the Illusive Man's most respected operatives. As a corporal in the First Contact War, Petrovsky was forced to take command of his unit and proved his tactical brilliance by holding off repeated Turian attacks for weeks. The war ended before his position was overrun but not before Petrovsky had witnessed firsthand the brutality of the Turian war machine.

Despite being praised and promoted for his bravery, Petrovsky eventually found more common ground with Cerberus than the Alliance military. Since leading the campaign to seize Omega, Petrovsky has proven to be a capable if firm administrator who is focused on containing or eliminating “unstable elements” before they threaten Cerberus’s occupation of the station.

Guardian

Guardians, the Cerberus equivalent of Human tanks, are slow-moving soldiers who carry enormous polycrystalline-composite shields. The weight of the shield requires an armored suit equipped with hydraulic assists and a dedicated power supply. Combining this exceptional protection with a suite of enviromapping systems, guardians focus on flanking opponents to flush them from cover.

A Guardian’s slow but relentless approach is intended to demoralize enemies as well as draw their fire, but rip away their shield, and guardians become little more than cannon fodder.

Nemesis

The nemesis is a Cerberus sniper specialist. Customized implants allow the nemesis to withstand the crippling kickback of the M-98 Widow antimateriel [sic] rifle, turning a redoubtable opponent into a force capable of inflicting instant death. A suite of high-tech scanning equipment makes the sniper adept at maintaining cover, meaning a nemesis is usually spotted only after opening fire - assuming the target survives the first round.

Because of self-destruct mechanisms that activate upon the sniper’s death, the Alliance has never retrieved an example of nemesis augmentation technology. This fact, combined with Cerberus forces’ penchant for suicide when faced with capture, has made scientific study of their implants impossible.

Phantom

Phantoms are agile Cerberus agents with a wide array of offensive and defensive capabilities, including particular specialization in evasive maneuvers and firing from cover. Although intelligence on their implants still evades the Alliance, phantoms are known to be able to create a personal barrier for greater protection.

Monomolecular blades and biotic shielding allow phantoms to engage in close-quarters combat, and phantoms can briefly cloak in order to recover from injuries. Because of this ability, the Alliance recommends personal confirmation of a phantom's death.

Rampart Mech

Though its initial invasion of Omega was successful, Cerberus was soon faced with the problem of controlling the station's large and often lawless population. An initial solution was to establish detainment areas bordered with impassable force fields, believed to be sheets of plasma suspended in a magnetic field. As Cerberus tightened its control of the station, units that could pass freely through the force fields to police the populace became necessary, leading Cerberus engineers to recover LOKI security mechs from the remaining Eclipse mercenary chapters.

When upgraded with Cerberus's proprietary mini-fabrication technology, shielding recovered from Omega's element zero processing plants, and additional ablative armor, the result was the Rampart mech, a flexible combat unit designed for control and intimidation of Omega's inhabitants.

Rampart mechs can seek out targets or troublemakers anywhere on Omega, even lower industrial areas where radiation can be intense. It is fitted with infrasound and scent markers that are "fight or flight" triggers for several species and are intended to subdue or disperse a crowd. When necessary,

Rampart mechs can channel all available power into generating a high-intensity shield that defends against hacking or biotic attacks and weapons fire, protecting the Rampart until reinforcements arrive. For combat, most Rampart mechs are equipped with a standard issue shotgun; if damaged beyond repair, the Rampart mech destroys the shotgun's aluminum-alloy heat-dispersal sinks, coating any nearby assailants in red-hot residue that burns through armor.

In extreme situations, the Rampart mech overclocks into a "hunter-killer" mode, diverting power from its unique shields to single-mindedly destroy its target. In this mode, the Rampart mech moves faster, attacking with a flash-forged omni-blade that targets unprotected nerve clusters and immobilizes the luckless target. The Rampart also channels excess heat through the dispersal sinks, visibly burning off material to create an intimidating display as it advances.

The Illusive Man

Mass Effect 2

The reclusive tycoon calling himself the Illusive Man is a Human nationalist focused on advancing Human interests, whatever the cost to non-Humans. The Citadel Council regards him as a fanatic posing a serious threat to galactic security.

A mysterious maverick to say the least, the Illusive Man heads the Cerberus network. Dubbed "the illusive empire" by investigators, Cerberus is an allegedly untraceable syndicate of private intelligence agencies, biotics laboratories, engineering and scientific research teams, and lucrative front companies.

Branded a terrorist and seditionist organization by authorities, Cerberus is the only Human power base other than the Terra Firma Party strong enough to embarrass - if not threaten - the Council and its Human representatives.

The Illusive Man is a Human loyalist focused on advancing the interests of his species, whatever the cost to non-Humans and reportedly Humans. The Citadel Council regards him as a fanatic who poses a serious threat to galactic security.

The reclusive tycoon is the head of Cerberus, an organization that furthers his pro-Human agenda throughout the galaxy. His views have led him into questionable alliances. Recent rumors go so far as to suggest that the Illusive Man may even have allied with the Reapers.

Citadel

The Citadel is an ancient deep-space station, presumably constructed by the Protheans. Since the Prothean extinction, numerous species have come to call the Citadel home. It serves as the political, cultural, and financial capital of the galactic community. To represent their interests, most species maintain embassies on the Presidium, the Citadel's inner ring.

The Citadel Tower, in the center of the Presidium, holds the Citadel Council chambers. Council affairs often have far-reaching effects on the rest of the galactic community. Five arms, known as the wards, extend from the Presidium. Their inner surfaces have been built into cities, populated by millions of inhabitants from across the galaxy.

The Citadel is virtually indestructible. If attacked, the station can close its arms to form a solid, impregnable shell. For as long as the station has existed, an enigmatic race called the keepers has maintained it.

Citadel Security Services (C-Sec)

C-Sec is a volunteer police service answering to the Citadel Council. The 200,000 constables of C-Sec are responsible for maintaining public order in the densely populated Citadel. They also provide pirate suppression, customs enforcements, and search-and-rescue throughout the Citadel cluster.

C-Sec has six divisions:

- **ENFORCEMENT** - Uniformed officers who patrol the Citadel and respond to emergencies.
- **INVESTIGATION** - Detectives who puzzle out the truth behind crimes and bring perpetrators to justice.
- **CUSTOMS** - Screen the thousands of passengers and cargo containers that pass through the Citadel's ports every day.

- **NETWORK** - Deals with “cybercrimes” like identity and copyright theft, hacking and viral attacks, and illegal artificial intelligence.
- **SPECIAL RESPONSE** - Deals with hostage situations, bombs, and heavily armed criminals. In the unlikely event that attackers board the Citadel, they are also the front line of defense, armed with military grade equipment.
- **PATROL** - Naval arm, with ships stationed throughout the Citadel cluster. Unlike the other divisions, they are rarely seen at the Citadel, nor do they stay in one place long.

Joining C-Sec is prestigious; applications must be sponsored by a Citadel Councilor or the ambassador of an associate Council race. Generally, applicants have many years of distinguished service in the military or police forces of their nations, but an inexperienced applicant with demonstrable talent will be fairly considered.

C-Sec and Spectres are often at odds. Many C-Sec members, notably the current Executor Venari Pallin, believe that allowing Spectres to be “above the law” is a dangerous practice, the actions of Saren Arterius lend credence to this position. The Spectres, in turn, are aggravated when C-Sec’s dedication to procedure and due process hampers their investigations.

Foundations

The “undersides” of the Wards between the inhabited superstructures and impenetrable outer hull are called the Foundations. These dangerous areas are filled with life support systems and power plants. Officially, only the keepers are allowed in the Foundations. In reality, the Foundations are the slums of the Citadel, home to criminals, minorities, transients, and the occasional “stateless” exiles. Some stay in the Foundations of their own will. Others end up there when the opportunities they sought in the Citadel do not come.

The station’s recycling systems are located in the Foundations. These

manufacture a variety of artificial organic pastes that can be eaten for sustenance. They are free and nutritious but nearly tasteless and of unpleasant texture. Poorer Citadel residents quickly become adept at dressing up this bland fare with sauces and spices while imported foodstuffs are a popular luxury of the wealthy.

Presidium Ring

The Ring is an enclosed loop of park-like space serving as the connection point for the Wards. The interior walls are lined with the embassies of influential species and private residences for the galaxy's elite.

The Presidium is full of "open-air" restaurants, bars, and luxurious meeting areas. Gravity is about 1/3 Earth-normal. A holographic "sky" is projected over the "ceiling" of the ring. Unlike the 24/7 bustle of the Wards, the Presidium maintains a 20-hour day schedule, with a six-hour "night" where lights are dimmed and the sky goes through a night cycle.

Offices and residences are often open to the interior. It is not unusual for embassies to have no exterior wall at all. This does not cause a crime problem due to the heavy C-Sec presence and ubiquitous monitoring devices on the Presidium. Thieves are quickly identified and apprehended.

The Ring is the location of the Citadel's spaceports. Being closer to the center of the spin, there is less motion for a ship to match, and the reduced spin gravity makes handling cargo easier.

Hundreds of ships pass through the Citadel every day, and every species with an embassy is granted a private dock.

The Tower, at the center of the Ring, holds the administration of the Citadel Council. The Tower rises over a kilometer from the ring, appearing to thrust forward parallel to the ward arms. As the Tower is at the center of the spin axis, it experiences little centrifugal force. Gravity is maintained using mass effect fields at a 90-degree angle to the Ring and Wards.

A Consular dock can be found at the base of the Tower. While normally used for diplomatic couriers and Spectre business, the shuttles docked here can evacuate the Council government in an emergency.

Serpent Nebula

The Citadel is surrounded by a blue-tinted reflection nebula. The light of the nebula is actually light from the Citadel, scattered and reflected back at the station.

At first, the Serpent Nebula was assumed to be made of microscopic construction debris.

Prevailing theory holds the Protheans used molecular nanotechnology to manufacture the incredibly durable materials used to make the Citadel. But unlike other nebulae, the Serpent does not dissipate over time. Therefore, it must be replenished constantly. The current popular theory is that the non-recyclable waste collected by the Citadel's keepers is somehow rendered down to the atomic or molecular level, and ejected into the clouds.

The thick nebula presents a navigation hazard. Beyond the relatively clear areas around the Citadel, electrical discharges are common. These are not blocked by kinetic barriers, and can severely damage metal-framed starships. In addition, some dense knots of dust can overwhelm the repulsion of kinetic barriers on smaller ships. If such a vessel is moving fast enough at the time, the effects are similar to being hit by a sandblaster.

Attempting to reach the Citadel through open space navigation is unadvisable; the only safe approach is through the various mass relays that orbit it.

Statistics

Although the Citadel is equipped with mass-effect-generating element zero cores, most of the gravity on the station is generated by the centrifugal force of rotation.

- Rotation: 3.5 minutes per revolution
- Rotational Gravity in Wards: 1.02 Earth
- Rotational Gravity in Presidium: 0.3 Earth
- Total Length (Open): 44.7 km
- Diameter (Open): 12.8km
- Ward Length: 43.6km
- Ward Width: 330m
- Presidium Ring Diameter: 7.2 km
- Presidium Ring Width: 553 m
- Exterior Armor Thickness: 13 m
- Population: 13.2 million (not including keepers)
- Gross Mass: 7.11 billion metric tons
- Height of the Presidium Tower: 1047 m

Wards

The majority of the Citadel's population lives in the Wards, the five massive arms of the station that house the residential and commercial districts. Many galactic races have established cultural enclaves here. Population density and cost of living are extremely high, akin to Earth cities such as Hong Kong and

Singapore.

The Wards are open-topped, with skyscrapers rising from the superstructure. Towers are sealed against vacuum, as the breathable atmosphere envelope is only maintained to a height of about seven meters. The atmosphere is contained by the centrifugal force of rotation and a “membrane” of dense, colorless sulphur hexafluoride gas, held in place by carefully managed mass effect fields.

The view from the Wards is spectacular. In the background, stars, Serpent Nebula, and the nearby blue giant called “the Widow” move across the sky as the station rotates to stabilize itself.

In the foreground, the lights of buildings and vehicles on the opposing Ward arms perpetually shine. The Citadel has no real day or night. While the station keeps to standard galactic time for political functions, business rarely close, and residents acclimate to sleep and work according to personal need rather than a day-night cycle.

Additions and modifications are constantly being constructed, though they must stay within certain specifications that will not compromise the operation of the station. Occasionally, the keepers will descend on an area of the Wards and move or change the architecture without explanation. Residents have learned to live with these inexplicable intrusions.

Citadel Conventions

These diplomatic talks occurred in the wake of the Krogan Rebellions, as a response to the destruction of the conflict and an attempt to distance the Council from the brutal Krogan warfare.

The Conventions regulate the use of Weapons of Mass Destruction. A WMD causes environmental alteration to a world. A bomb that produces a large crater is not considered a WMD; a bomb that causes a “nuclear winter” is.

Use of WMD is forbidden on “garden” worlds like Earth, with ecospheres that can readily support a population. If a habitable world is destroyed, it will not be replaced for millions of years. The Conventions do not forbid the use of WMD on hostile worlds or in sealed space-station environments. Many militaries continue to develop and maintain stockpiles.

The Conventions graded Weapons of Mass Destruction into tiers of concern. Tier I is the greatest threat to galactic peace.

- TIER I: Large kinetic impacters, such as asteroid drops or de-orbited space stations. Effectively free and available in any system (in the form of debris left over from planetary accretion), kinetic impacters are the weapons of choice for terrorists and “third galaxy” nations.

- TIER II: Uncontrolled self-replicating weapons, such as nanotechnology, viral or bacteriological organisms, “Von Neumann devices”, and destructive computer viruses. These weapons can lie dormant for millennia, waiting for a careless visitor to carry them on to another world.

- TIER III: Large energy-burst weapons such as nuclear or antimatter warheads.

- TIER IV: Alien species deliberately introduced to crowd out native forms necessary for the health of an ecosystem. Ecological tampering can take years to bear fruit, making it difficult to prove.

Citadel Council

The Council is an executive committee composed of representatives from the Asari Republics, the Turian Hierarchy, and the Salarian Union. Though they have no official power over the independent governments of other species, the Council's decisions carry great weight throughout the galaxy. No single Council race is strong enough to defy the other two, and all have a vested interest in compromise and cooperation.

Each of the council species has general characteristics associated with the various aspects of governing the galaxy. The Asari are typically seen as diplomats and mediators. The Salarians gather intelligence and information. The Turians provide the bulk of the military and peacekeeping forces.

Any species granted an embassy on the Citadel is considered an associate member, bound by the accords of the Citadel Conventions. Associate members may bring issues to the attention of the Council, though they have no input on the decision. The Human Systems Alliance became an associate member of the Citadel in 2165.

Citadel Space

Citadel space is an unofficial term referring to any region of space controlled by a species that acknowledge the authority of the Citadel Council. At first glance, it appears this territory encompasses most of the galaxy. In reality, however, less than 1% of the stars have been explored.

Even mass-effect-FTL drive is slow relative to the volume of the galaxy. Empty space and systems without suitable drive discharge sites are barriers to exploration. Only the mass relays allow ships to jump hundreds of light years in an instant, the key to expanding across an otherwise impassable galaxy.

Whenever a new relay is activated, the destination system is rapidly developed. From that hub, FTL drive is used to expand to nearby star clusters. The result is a number of densely-developed clusters thinly spread across the vast expanse of space, connected by the mass relay network.

Battle of the Citadel

Paragon

In 2183, a rogue Spectre named Saren Arterius attacked the Citadel through a functioning mass relay hidden inside a statue on the Presidium. Saren brought a combined force of Krogan and Geth infantry from Ilos, timing the attack so that he would be at the Citadel's controls when the Geth fleet and his flagship, Sovereign, arrived. In the battle that followed, the Destiny Ascension dreadnought evacuated the Citadel Council, but ordered the wards' arms closed, sealing them and the Geth inside an impregnable shell, cutting off any reinforcements or escape. This combative tactic would have wholly destroyed the Council fleet were it not for the actions of Commander Shepard, who had followed Saren through the relay from Ilos.

Led by Shepard's ship Normandy, the Systems Alliance's Fifth Fleet assembled under the command of Admiral Hackett and waited just outside the Citadel's closed arms. Meanwhile, Shepard fought Saren's forces inside the Citadel and eventually forced the ward arms open again.

The Normandy defended the Destiny Ascension as it fled, saving the lives of the Citadel Council. Taking its cue from the Normandy, the Fifth Fleet supported the withdrawal, and took heavy losses from Sovereign's advanced firepower. At about the same time Shepard killed Saren, Sovereign's once-impervious kinetic barrier overloaded and the Fifth Fleet focused its military might to shatter the flagship. The Geth fleet was soon decimated without its leader.

In gratitude for the many Human lives sacrificed to save it, the Council made the unprecedented move of offering Humans the chance to become a Council race. Ambassador Donnel Udina and Captain David Anderson accepted this honor on behalf of their species.

Renegade

In 2183, a rogue Spectre named Saren Arterius attacked the Citadel through a functioning mass relay hidden inside a statue on the Presidium. Saren brought a combined force of Krogan and Geth infantry from Ilos, timing the attack so that he would be at the Citadel's controls when the Geth fleet and his flagship, Sovereign, arrived. In the battle that followed, the Destiny Ascension dreadnought evacuated the Citadel Council, but ordered the wards' arms closed, sealing them and the Geth inside an impregnable shell, cutting off any reinforcements or escape. This combative tactic would have wholly destroyed the Council fleet were it not for the actions of Commander Shepard, who had followed Saren through the relay from Ilos.

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Shepard called for the Normandy to concentrate firepower on Sovereign. The Fifth Fleet took its cue from the Normandy and turned all firepower on the Geth flagship, letting the Destiny Ascension and other fleeing Council ships perish fighting the Geth fleet. At about the same time Shepard killed Saren, Sovereign's once-impervious kinetic barrier overloaded and the Fifth Fleet focused its military might to shatter the flagship. The Geth fleet was soon decimated without its leader.

With the Citadel Council and nearly everyone in its line of succession killed, Humanity stepped into the power vacuum. Ambassador Donnel Udina and Captain David Anderson were instrumental in pulling toGether a new galactic government, with Humans as the dominant voice.

Collectors

Living beyond the Omega-4 mass relay in the Terminus Systems, the mysterious Collector species is glimpsed so rarely as to be taken for a myth by most in galactic society. In reality, Collectors are Human-sized insectoid bipeds and can resemble massive winged beetles. They are a terrifying force in the galaxy, responsible for the murder of hundreds of thousands.

Collectors generate permanent stasis fields around themselves, creating nightmarish red-shifted energy fields. In battle, they hold position whenever possible, relying on their aggressive biotics and nearly limitless power. Several types of bipedal Collectors have been identified, including minions, defenders, zealots, assassins, and artillery-operators.

Acting toGether, Collectors have imprisoned entire cities in stasis. While no definitive forensic accounting exists to explain the fate of those imprisoned, leading speculation is that victims are harvested for scientific experimentation and neuro-biological repurposing.

Collector General

Cerberus xenobiologists believed that until recently that the Collectors were coordinated by a biologically active caste, similar to other insectoid alien species. New evidence suggests the Collectors have a singular commander, a so-called “Collector General” that has never been seen on the battlefield. Instead, it selects its minions as remote platforms for its consciousness in a process that has been likened to a biological hack or a cybernetic version of demonic possession.

The Collector General can send a secure signal to any one of its minions, smoothly take control of their motor functions, and awaken their previously dormant biotic potential. In a matter of seconds, even the lowliest Collector drone can be upgraded to a battle-hardened biotic commander. If the

Collector dies, the General can simply activate and control another body.

Postmortem analysis reveals that this “command signal” relies on cybernetic implants directly installed in the Collectors’ cerebellums, but how the technology functions is presently unknown.

Coordinating sensory input and motor functions simultaneous with remotely amplifying biotic abilities is beyond the grasp of current Human science. Why such an advanced species would be interested in Humans is puzzling. More disturbing still, victims of the Collectors say the General has spoken to them and referred to itself by a Human name: Harbinger.

Harbinger Connection

While monitoring outgoing transmissions sent by the mysterious leader of the Collectors to his minions on the battlefield, Cerberus intelligence experts also intercepted incoming transmissions.

The signals were encrypted commands sent to the Collector General from a source outside the galaxy. This directing intelligence is likely the Reaper that refers to itself as “Harbinger.”

This indicates that the Collector General, previously thought of as a puppeteer-like figure, was essentially a mere conduit through which Harbinger mobilized the Collectors’ mission to protect and nurture an embryonic Reaper by providing it a steady supply of Humans. In this way, the Collectors allowed the proto-Reaper to incorporate the Human genome into its own construction, though why a Reaper would want such a thing is still unclear.

Oculi

An oculus is a mechanical servitor of the Collectors, apparently built with a

single purpose—to find and eliminate threats. Its outer structure has three apertures that house long-range detection equipment similar to those found on deep-space probes, used to find and track targets from near-stellar distances. Contragrav mass effect fields allow an oculus to move easily through space or atmosphere in pursuit of its prey, and a large central lens serves as the emission center for its weapons platform. All four of its lenses have a titanium iris covering that prevents the detector's optics from scratching due to interstellar dust or atmospheric residue.

Upon its destruction, more of the oculus' features become apparent. Its interior houses fibers of near-inorganic nerves, indicating that a Collector drone has been stripped down to its central nervous system, reinforced with interfacial gel that can withstand hard vacuum, and repurposed to pilot the oculus for the rest of its existence.

The central weapon is a strange one, operating on alien principles. It appears to use mass effect fields and directed energy to attack the strong nuclear force that holds its targets' atoms together, producing heat and light in an air atmosphere and causing irradiating gamma particles to burst from any heavy metals targeted by the beam. Such a weapon could easily cut through shields, and leave its target dying with just a glancing hit.

Communications

Real-time communication is possible thanks to networks of expensive mass relay comm buoys that can daisy-chain a transmission via lasers.

Comm buoys are maintained in patterns built outward from each mass relay. The buoys are little more than a cluster of primitive, miniature mass relays. Each individual buoy is connected to a partner on another buoy in the network, forming a corridor of low-mass space. Tightbeam communications lasers are piped through these “tubes” of FTL space, allowing virtually instantaneous communication to anywhere on the network. The networks connect across regions by communications lasers through the mass relays.

With this system, the only delay is the light lag between the source or destination and the closest buoy. So long as all parties remain within half a light-second (150,000 km) of buoys, seamless real time communications are possible. Since buoys are maintained in all traveled areas, most enjoy unlimited instant communications. Ships only suffer communications lag when operating off established deep space routes, around uninhabited outer system gas giants, and other unsettled areas.

During wartime, comm buoy networks are the first target of an attack. Once the network is severed, it can take anywhere from weeks to years to get a message out of a contested system. In systems where a buoy network has not yet been built or has been destroyed, rapid communication means ferrying information through high-speed courier ships and unmanned data drones.

Administration

While comm buoys allow rapid transmission, there is a finite amount of bandwidth available. Given that trillions of people may be trying to pass a message through a given buoy at any one time, access to the network is parceled out on priority tiers.

The Citadel Council and the Spectres have absolute priority; if they are using all the bandwidth, everyone else must wait. Individual governments and their militaries enjoy the next-highest tier.

During wartime, civilian communication can suffer hours or even days of lag. Intelligence agencies study ping time through various systems to predict military buildups.

Below the governments and militaries, bandwidth priority is sold to the highest bidder. Media conglomerates, particularly headline news networks, purchase higher priority to provide their viewers with timely information. Corporations that require timely information and response capability (for example, financial institutions and investment firms) also invest heavily in priority access. The funds acquired through sales of bandwidth are used to maintain and expand the communications infrastructure.

While everyone with a computer has guaranteed free and unlimited access to the galactic extranet, they are last in line for bandwidth and may have to wait for their requests to be processed. Bandwidth resale corporations use investment capital to purchase blocks of high priority access, made available by paid subscription.

Methodology

As the population of the galaxy increases and new worlds are settled, timely access for home users and frontier settlements with underdeveloped communications infrastructures is a growing problem. To ameliorate bandwidth issues, a sophisticated array of data caches and virtual intelligence search agent programs are available.

When a user submits a query, it is first routed to the data cache, the user’s search agent VI collates mountains of locally-stored data to find the desired material. If the information is not available locally, the query is passed along to neighboring systems, and then outward in an expanding network. VI search agents in those systems replicate the search. If the desired information

is found, it is compressed into a “burst” file and queued for transmission to the source system. The burst is assigned a priority based on the number of queries for it; the greater the number of queries, the higher the priority.

When a new solar system is first connected to the net, a selection of the most popular data is installed locally. Though storage hardware is cheap, the capacity required to hold all the data produced everyday by trillions of people on hundreds of worlds is not trivial. It’s not economical to store local copies of all the data available on obscure topics just in case.

As colonies mature, older and less-popular chunks of data filter into them as a result of queries and are placed in the local archive. Searches for obscure topics are increasingly likely to produce instant results as the archive grows.

Quantum Entanglement Communicators (QEC)

When a pair of quantum-entangled particles is separated, a change to one particle will affect the other instantaneously, wherever it lies in the universe. QECs exploit this effect to transmit binary data any distance. Two pairs of entangled particles are necessary for transmission and reception.

While QEC technology is extremely expensive and difficult to produce, it offers two enormous advantages. First, it allows instantaneous communication over any distance without reliance on the network of comm buoys, which is limited due to the sheer volume of space. Further, destruction of buoys hampers a foe’s military intelligence; comm buoys are the first targets of raiders in wartime. Second, quantum communications cannot be intercepted between source and destination, allowing no “wiretaps.”

Unfortunately, QECs cannot replace the galactic civil communications infrastructure. First, they have extremely limited bandwidth. A single entangled particle can only transmit a single qubit (quantum bit) of data at once. Second, the system’s exclusively point-to-point nature precludes peer-to-peer networking and data dissemination through the galactic extranet.

The most strategically appropriate military application of QECs is at the headquarters level. Each Alliance colony would maintain a QEC at its military headquarters and each fleet flagship in its CIC. All the pairs for these would be located at a central facility within Arcturus Station. During an attack, a facility would signal Arcturus to transmit its information to every other fleet and colony. However, destruction of the comm center at Arcturus would collapse the entire network.

Computers

Artificial Intelligence (AI)

An artificial intelligence is a self-aware computing system capable of learning and independent decision making. Creation of conscious AI requires adaptive code, a slow, expensive education, and a specialized quantum computer called a “blue box”.

An AI cannot be transmitted across a communication channel or computer network. Without its blue box, an AI is no more than data files. Loading these files into a new blue box will create a new personality, as variations in the quantum hardware and runtime results create unpredictable variations.

The Geth serve as a cautionary tale against the dangers of rogue AI, and in Citadel Space they are technically illegal. Advocacy groups argue, however, that an AI is a living, conscious entity deserving the same rights as organics. They argue that continued use of the term “artificial” is institutionalized racism on the part of organic life, the term “synthetic” is considered the politically correct alternative.

Haptic Adaptive Interface

Advances in computing have done away with traditional input devices like keyboards. Instead, modern input peripherals are usually holographically displayed in front of the user at a height and angle for ergonomic ease. Machines that use this interface detect a user through a microframe chip in the user’s glove that “keys in” to the computer. Once a user is accepted, motion accelerometers in the user’s gloves match his hands’ location with that of a proportionate but smaller “mirror” set of controls inside the computer itself. As the user presses against the holographic field, force-feedback in the glove kicks in, giving a slight resistance. A person can feel

his way through using a touch-screen that isn't actually there. A simple toggle switch on the back of the hands allows the glove to be turned off when not in use.

Haptic interfaces have become so common that some individuals undergo cybernetic enhancement surgery to have the accelerometers implanted in their fingertips. "Going bareskin" is the sign of a committed computer user who no longer has to fuss with putting on gloves or cleaning them with alcohol wipes to get rid of the clammy-hand smell.

Synthetics

"Synthetic" is the politically correct term for an artificially intelligent computer. An artificial intelligence (AI) is capable of learning and independent decision making—capabilities beyond the simple virtual intelligence (VI) software used as computer operating systems.

An AI requires both quantum computing hardware (brain) and adaptive software (consciousness). When first brought online, an AI runs at a very low processing speed, with a handful of input sources, and the intellectual capability as a newborn Human. AIs experience life at the speed their hardware runs, and can absorb information from millions of sources at once. If "switched on" at full capacity, they cope badly with the deluge of input. At best, such an AI is severely autistic; at worst, it is insane.

As operators teach AI to reason and filter incoming data, they increase the AI's processing speed. At a year's age, an AI can observe, consider, and react hundreds of times faster than its organic creators. Mature AIs may be frustrated by the comparative "slowness" of the organics they must interact with.

Galactic culture mistrusts synthetic life. While physically immobile, an AI can assert its will by taking control of networked computing systems. AI laboratories are physically isolated from the galactic extranet and placed in remote, uninhabited locales.

Some futurists believe the ascendancy of synthetics is inevitable. The theory of technological singularity asserts that as the rate of technological advancement increases, there will come a point at which AIs can modify themselves faster than organics can. Eventually, synthetic life will be able to self-evolve so rapidly, organics will lose the ability to comprehend the process.

Not all believe such an evolution to be negative. Transcendency cults believe organic minds will one day be uploaded and emulated as software data, providing synthetic immortality.

Virtual Intelligence (VI)

A virtual intelligence is an advanced form of user interface software. VIs use a variety of methods to simulate natural conversation, including an audio interface and an avatar personality to interact with. Although a VI can provide a convincing emulation of sentience, they are not self-aware, nor can they learn or take independent action.

VIs are used as operating systems on commercial and home computers. Menial VI “agents” are also available. Agents are compact and specialized. Some serve as personal secretaries, filtering calls and scheduling meetings based on user-defined priorities. Others are advanced search engines, propagating themselves across the extranet to collate user-requested data.

Commercial VIs in a variety of stock personalities are available at any software retailer.

Boutique firms and hobbyists also build unique VIs to personal specification. Although software emulation of living personalities is illegal, reconstructions of famous historical figures are common.

Credits (“Creds”)

The standard credit was established by the Citadel’s Unified Banking Act as the currency of interstellar trade. The credit has a managed floating exchange rate, calculated in real time by the central bank to maintain the average value of all participating currencies. Some regional currencies are worth more than a credit and some less.

Hard currency can be stolen or counterfeited, so electronic fund transfers are the norm. More importantly physical transactions cannot easily be tracked, making them ideal for tax evasion or the purchase of illegal goods.

When the Alliance joined the Citadel, its various national treasuries were linked into the credit network. A Human with a bank account of Mexican pesos, Japanese yen, or Indian rupees can purchase any item priced in credits at fair market value. All economies participate in the credit network are required to price items in both local currency and credits.

The Crucible

The Mars Archives describe a superweapon that the Alliance has named the Crucible, which exploits the technology of mass effect relays. Beyond the basic principles, however, researchers know little about how the weapon actually works.

One popular theory suggests that since relays can transfer matter and energy across the galaxy with little regard for distance, it may be possible to create a weapon for which range is barely a factor. Duplicating the advanced science used to build the relays has proven difficult, however. If the Crucible were completed, the challenge would become tuning the weapon to kill a Reaper halfway across the galaxy without inflicting unthinkable levels of collateral damage.

What is clear is that the Crucible's construction is a massive effort, drawing resources from throughout explored space. Staggering financial costs have been disregarded in the common effort to create something, anything, that can stop the Reapers.

Cyclonic Barrier Technology (CBT)

Cyclonic Barrier Technology (CBT) attempts to solve the higher-end limitations of traditional kinetic barriers. Traditional barriers cannot block high-level kinetic energy attacks such as disruptor torpedoes because torpedo mass effect fields add mass. The CBT violently slaps aside rather than halting incoming linear force. By rotationally firing their mass effect field projectors, ships create rapidly oscillating kinetic barriers instead of static ones. Shooting through the CBT is like trying to shoot at a target inside a spinning ball.

Significant drawbacks to current CBT configuration prevent its use on anything other than frigates and fighters. Its many high-frequency sensors and emitters require frequent maintenance and replacement. A partially damaged CBT can endanger its operator, who is surrounded by rotating mass effect fields skewing in unpredictable directions. Fortunately, if an emitter is damaged, the CBT corrects to become a traditional shield array, a safety feature that makes it most effective during opening volleys.

Drell

Two centuries ago, the Hanar helped 375,000 members of the Drell race migrate to the Hanar homeworld, Kahje, to escape the environmental extermination that had claimed the remaining 11 billion Drell.

Nearly all Drell demonstrate tremendous loyalty to their famously reclusive saviors. The intimacy of their relationship, expressed in a formal sociopolitical alliance called the Compact, also results in extremely close personal relations in which some Drell actually learn Hanar Soul names. While most Drell reside on Kahje, some assist Hanar off-world as envoys, researchers, co-investors, wayfarers, assassins or otherwise, eager to help their saviors. For a century, galactic wisdom has held that behind any high-ranking Hanar hides a resourceful and fanatically devoted Drell.

The omnivorous, reptilian Drell possess an average life span of 85 galactic standard years.

Having evolved on an arid planet, Drell face serious illness on the Hanar homeworld, especially Kepral’s Syndrome, a fatal bacterial lung disease.

Biology

Drell are omnivorous reptile-like Humanoids with an average life span of 85 galactic standard years. They give live birth to their young who are capable of eating solid food from the moment they are born. Drell appearance is very similar to Asari and Humans, but their muscle tissue is slightly denser than that of Humans giving them a wiry strength. Many of their more reptilian features are concealed, like a three chambered heart with a muscular ridge that is capable of shunting oxygenated or deoxygenated blood as needed.

One unique characteristic, however, is the hyoid bone in their throats which allows them to inflate their throats and produce vocal sounds outside the Human range. Would-be assassins have noted that these two features make

Drell extremely hard to strangle or suffocate.

Because the Drell ancestors emerged from arid, rocky deserts the humid ocean-covered Hanar homeworld of Kahje proved tolerable only when the Drell stayed inside a climate-controlled dome city. Due to this huge disparity in the two species' homeworld environments the leading cause of death among Drell on Kahje is a bacterial lung disease called Kepral's Syndrome.

Within a generation of the Drell's arrival on the planet the disease had become resistant to Hanar antibiotics and other advanced treatments. Once an infection settles in, death is slow but imminent. Transplants may buy time, but as the infection spreads to other major organs there comes a point of diminishing returns and eventual system failure.

Culture

Eight centuries ago, the already arid Drell homeworld, Rakhana, began it swift descent into lifelessness due to disastrous industrial expansion. Because their population was bursting at 11 billion and they did not possess interstellar flight capacity, the Drell would have been doomed without the intervention of the Hanar.

Following first contact, the Hanar spent ten years transporting 375,000 willing Drell to their own homeworld, Kahje. The remaining billions perished in the dying world, warring against each other for diminishing sources of water and food. Today, only a few thousand survive on Rakhana in clusters never exceeding a few hundred. Now a cemetery world, Rakhana's population can double during pilgrimage season.

Drell have been part of the galactic community for almost two centuries. Most reside on Kahje, content to coexist with the Hanar. Those who leave Kahje tend to be adventurers. Gifted by the Hanar with acute perception of interspecies body language, solitary Drell travelers often seek out new species elsewhere, adapting that species' culture and rarely returning to Kahje. Such Drell number in the thousands and are scattered across the

galaxy, tending towards quiet, integrated lives.

On Kahje, the Hanar afford the Drell every opportunity to thrive. While outsiders and even some Hanar regard the Drell as junior partners, if not actual servants, Drell have integrated themselves into every level of Hanar society as respected productive citizens.

Drones

Drones are small robots used to support and supplement organic soldiers on the battlefield. They have no Artificial Intelligence of any kind but follow fixed, minimally adaptive programs. Most varieties employ mass effect levitation to improve mobility.

All modern armies rely on veritable fleets of drones for routine soldiering (static garrisons, patrols, etc.). The use of drones in non-critical duties keeps manpower need down and reduces casualties in low intensity conflicts. Less advanced races and cultures with less sensitivity to casualties have correspondingly few drones in their inventory. Drones are of little use in conventional open field battles, as they are poorly armed and armored.

In addition to combat drones, support drones are used to assist organic units in the field.

Reconnaissance drones are small, stealthy craft that screen combat units in the field and warn commanders when enemies are spotted. Electronic Warfare drones supplement battlefield technicians, serving as mobile jammers and ELINT (ELectronic INTelligence) gathering platforms. Military and civilian police utilize “dazzler drones” equipped with powerful strobe lights to disorient and subdue intruders using nonlethal force.

Drone formations are officially referred to as wings, (i.e. “Deploy the 4th Assault Drone Wing on the left flank”). Common soldiers often refer to friendly formations as flocks and enemy formations as swarms.

EDI

The Enhanced Defense Intelligence, or EDI, serves as an information source and cyberwarfare defense system on the rebuilt Normandy SR-2. The ship's crew can access EDI at any terminal or through radio contact.

During an attack from a Collector vessel, pilot Jeff "Joker" Moreau gave EDI full access to the Normandy's systems, allowing the ship to escape. Although EDI retains the control that Moreau gave her, she is usually content to advise the organic crew members who fly and maintain the ship.

Elcor

The elcor are a Citadel species native to the high-gravity world Dekuuna. They are massive creatures, standing on four muscular legs for increased stability. Elcor move slowly, an evolved response to an environment where a fall can be lethal. This has colored their psychology, making them deliberate and conservative.

Elcor speech is ponderous and monotone. Among themselves, scent, slight movements, and subvocalized infrasound convey shades of meaning that make a Human smile seem as subtle as a fireworks display. Since their subtlety can lead to misunderstandings with other species, the elcor often go out of their way to clarify when they are being sarcastic, amused, or angry.

Dekuuna’s high gravity impedes mountain formation. Most of the world consists of flat, open plains which prehistoric elcor wandered across in small family bands. Modern elcor still prefer open sky, and become restless and uncomfortable on long starship journeys.

Eldfell-Ashland Energy

In 2137, the Ashland Energy Corporation successfully extracted helium-3 from Saturn’s atmosphere, beginning a new era of fusion research. On the wave of this success, they merged with Eldfell Construction to vertically integrate the two companies’ strengths. Ashland would recover the raw materials for energy production, and Eldfell would build power plants, refineries, and pipelines on nearby worlds to distribute Ashland’s products to the consumer. Eldfell-Ashland Energy was born.

As EAE’s reach extended, they absorbed companies to create a “cradle-to-grave corporate experience” for their employees. Today, subsidiaries such as Second Star Living recruit colonists to staff EAE facilities, and the education group Excelsior provides job-related education opportunities to provide EAE stations with a qualified incoming workforce. Water, power, food, shipping - EAE provides them all. If EAE wants to put a colony on a garden world, they are able to do so and keep 90% of services performed completely in-house, creating consumers out of its own employees. Its primary revenue stream, however, continues to come from mining base elements like hydrogen, helium-3, and eezo and trading in their futures.

Element Zero (“Eezo”)

When subjected to an electrical current, the rare material dubbed element zero, or “eezo”, emits a dark energy field that raises or lowers the mass of all objects within it. This “mass effect” is used in countless ways, from generating artificial gravity to manufacturing high-strength construction materials. It is most prominently used to enable faster-than-light space travel.

Eezo is generated when solid matter, such as a planet, is affected by the energy of a star going supernova. The material is common in the asteroid debris that orbit neutron stars and pulsars.

These are dangerous places to mine, requiring extensive use of robotics, telepresence, and shielding to survive the incredible radiation from the dead star. Only a few major corporations can afford the set-up costs required to work these primary sources.

Humanity discovered refined element zero at the Prothean research station on Mars, allowing them to create mass effect fields and develop FTL travel.

First Contact War

Humanity’s first contact with an alien race occurred in 2157. At that time, the Alliance allowed survey fleets to activate any dormant mass relays discovered, a practice considered dangerous and irresponsible by Council-aligned races. When a Turian patrol discovered a Human fleet attempting to activate a relay, they attacked. One Human vessel survived, retreating to the colony of Shanxi.

The Turians followed, quickly defeating the local forces. Shanxi was occupied, the first - and, to date, only - Human world to be conquered by an alien species. The Turians believed the handful of ships they defeated represented the bulk of Human defenses. So they were unprepared when the Second Fleet under Admiral Kastanie Drescher launched a strong counteroffensive, evicting them from Shanxi.

The Turians mobilized for full-scale war, drawing the attention of the rest of the galaxy. The Council quickly intervened, forcing a truce. Fortunately for Humanity, the First Contact War was ended with a diplomatic solution.

Fornax

Launched in 2167, Fornax magazine described itself as “the galaxy’s finest xenophilia”. Fornax became the first Human magazine to offer full five-sensory stimulation, a previously-unaffordable magazine technology made profitable by the economy of scale. With a monthly publishing run of 127 million available in both in hard-copy and direct download, Fornax offers a range of alien models with particular emphasis on the unisexual Asari, although both genders of Quarians, Drell, Batarians, and volus are regularly depicted. Specialty editions such as Genit-elcor and Krogasm service devoted but smaller markets.

FTL Drive

Faster-than-light drives use element zero cores to reduce the mass of a ship, allowing higher rates of acceleration. This effectively raises the speed of light within the mass effect field, allowing high speed travel with negligible relativistic time dilation1 effects.

Starships still require conventional thrusters (chemical rockets, commercial fusion torch, economy ion engine, or military antiproton drive) in addition to the FTL drive core. With only a core, a ship has no motive power.

The amount of element zero and power required for a drive increases exponentially to the mass being moved and the degree it is being lightened. Very massive ships or very high speeds are prohibitively expensive.

If the field collapses while the ship is moving at faster-than-light speeds, the effects are catastrophic. The ship is snapped back to sublight velocity, the enormous excess energy shed in the form of lethal Cherenkov radiation.

Appearance

New space travelers ask, “What does it look like outside a ship moving faster-than-light speed?”

Part of the answer can be seen in a simple pane of glass. Light travels slower through glass than it does through open air; light also moves slower in conventional space than it does in a high-speed mass effect field. This causes refraction - any light entering at an angle is bent and separated into a spectrum. Objects outside the ship will appear refracted. The greater the difference between the objective (exterior) and subjective (interior) speeds of light, the greater the refraction.

As the subjective speed of light is raised within the field, objects outside will appear to red-shift, eventually becoming visible only to radio telescope

antennae. High-energy electromagnetic sources normally hidden to the eye become visible in the high blue spectrum. As the speed of light continues to be raised, x-ray, gamma ray, and eventually cosmic ray sources become visible. Stars will be replaced by pulsars, the accretion discs of black holes, quasars, and gamma ray bursts.

To an outside observer, a ship within a mass effect drive envelope appears blue-shifted. If within a field that allows travel at twice the speed of light, any radiation it emits has twice the energy as normal. If the ship is in a field of about 200 times light speed, it radiates visible light as x-rays and gamma rays, and the infrared heat from the hull is blue-shifted up into the visible spectrum or higher.

Ships moving at FTL are visible at great distances, though their signature will only propagate at the speed of light.

Drive Charge

As positive or negative electric current is passed through an FTL drive core, it acquires a static electrical charge. Drives can be operated an average of 50 hours before they reach charge saturation. This changes proportionally to the magnitude of mass reduction; a heavier or faster ship reaches saturation more quickly.

If the charge is allowed to build, the core will discharge into the hull of a ship. All ungrounded crew members are fried to a crisp, all electronic system are burned out, and metal bulkheads may be melted and fused toGether.

The safest way to discharge a core is to land on a planet and establish a connection to the ground, like a lightning rod. Larger vessels like dreadnoughts cannot land and must discharge into a planetary magnetic field1.

As the hull discharges, sheets of lightning jump away into the field, creating beautiful auroral displays on the planet. The ship must retract its sensors and

weapons while dumping charge to prevent damage, leaving it blind and helpless. Discharging at a moon with a weak magnetic field can take days. Discharging into the powerful field of a gas giant may require less than an hour.

Deep space facilities such as the Citadel often have special discharge facilities for visiting ships.

Genetic Engineering

In the 22nd century, manipulation of the Human genome became commonplace. Techniques for genetic engineering advanced to the point where the rich could custom-build fetuses that grew into stronger, smarter, and more attractive adults. In more permissive regions, custom-designed life forms and “uplifted” animals occupied an ill-defined niche between “property” and “sapient being”.

Travel to planets with unique forms of life brought an awareness that Earth’s biodiversity could be lost if it spliced and hybridized to gain useful alien qualities. The Sudham-Wolcott Genetic Heritage Act was passed by the Systems Alliance Parliament in 2161. It imposed sharp restrictions on controversial uses of genetic engineering, but provided government subsidies for beneficial applications.

SCREENING AND THERAPY: Most governments provide free assessments and corrective therapy for genetic diseases in prospective parents. This has nearly eliminated everything from cystic fibrosis to nearsightedness. The earlier screening and therapy is performed, the more comprehensive the results. Though ideally performed on artificially fertilized zygotes in a lab, procedures are available for embryos in the womb and newborns, out of respect for personal beliefs.

ENHANCEMENT: Improvements of natural Human abilities is legal, but adding new abilities is not. Treatments to improve strength, reflexes, mental ability, or appearance are permitted; adding a tail or the ability to digest cellulose is not. Some genetic enhancement is provided for free to Alliance military recruits, but the average citizen must pay for the privilege. The process can take years to reach fruition in an adult.

ENGINEERING: Artificial hybridization of genes from compatible non-Human species with Human genetic code is illegal. Creation of designed life is broadly legal (and mainly used for terraforming and medical applications), but sentient creatures are heavily regulated, and creation of sapient life is

outlawed by both the Systems Alliance and the Citadel Council.

Geth

The Geth are a Humanoid race of networked A.I.s. They were created by the Quarians 300 years ago as tools of labor and war. When the Geth showed signs of self-evolution, the Quarians attempted to exterminate them. The Geth won the resulting war. This example has led to legal, systematic repression of artificial intelligences in galactic society.

The Geth possess a unique distributed intelligence. An individual has rudimentary animal instincts, but as their numbers and proximity increase, the apparent intelligence of each individual improves. In groups, they can reason, analyze situations, and use tactics as well as any organic race.

Geth space is located at the trailing end of the Perseus Arm, beyond the lawless Terminus Systems. The Perseus Veil, an obscuring “dark nebula” of opaque gas and dust, lies between their space and the Terminus Systems.

Armatures

Armatures are quadruped all-terrain heavy weapons platforms, akin to the armored fighting vehicles of other races. Geth being synthetic intelligences, armatures are not crewed vehicles, but intelligent entities, capable of independent decision-making and learning.

Armatures are equipped with heavy kinetic barriers. Their main cannon, mounted on the articulated “head” turret, appears to be a highly efficient conventional mass accelerator. It is capable of firing in anti-personnel and anti-tank modes. Some armatures carry drones into battle, presumably for reconnaissance purposes. Others host a swarm of insect-sized repair microbots.

Culture

The most remarkable aspect of Geth culture is that it may not exist at all. Geth are a network intelligence; a single entity in myriad bodies. They share data with one another, whether discrete facts or “memories”: audiovisual recordings of experiences and logs of thought-processes. Any event experienced by one Geth is uploaded to the group mind, so that all Geth, everywhere, “remember” such an event as if they’d experienced it themselves.

No one knows whether the Geth develop personalities as organic-created AIs do. If an organic-designed AI is transferred into another quantum bluebox, its personality is reset. Most Geth programs transfer from one hardware platform to another constantly; if a Geth needs to travel to another star, it downloads into a starship body. If it needs to replace a piece of malfunctioning hardware, it downloads into a small body with hands. If Geth are reset at transfer, it would make development of individual personalities unlikely.

Records of the Quarian war suggest the Geth have no concept of self-preservation. They do not flinch from gunfire, and do not hesitate to sacrifice themselves if it allows their fellows an advantage. Thousands of mobile platforms were expended assaulting Quarian positions, but file-sharing between platforms ensured their memories and experience would not be lost. Geth are therefore immortal; if their hardware is destroyed, archival copies of their programs and databases can be downloaded into a new body.

With the gap in contact between the Quarian war and the arrival of Sovereign, the only proven fact about the Geth is that they were isolationists for centuries. They never ventured outside the Perseus Veil, but no organic ship that entered their territory ever returned.

Heretics

Conversations with the Geth programs dubbed “Legion” have brought to light a profound schism in Geth society. When Saren Arterius approached the Geth in the dreadnought Sovereign, some of them chose to follow him; most did not. Saren’s followers were allowed to leave Geth society, but were

dubbed “heretics” by those that remained.

This revelation implies several things. First, the majority of Geth chose not to attack organic society. Second, the Geth forces the Council and Alliance fleets have battled the last two years represent only a small portion of their actual military and economic power, perhaps as little as five percent of mainstream Geth society. Third, this schism suggests that individual Geth possess more free will and perhaps even personality than previously suspected. Without such individuality, no Geth could have deviated from the group decision to join or reject Saren’s mission. There could not have been a division.

Finally, there is the matter of Legion’s word choice. The Geth used the English word “heretics” to describe Saren’s followers. Of the many words Legion could have chosen (nonconformists, dissenters, rebels, etc.), only the word “heretic” suggests a broadly accepted Geth philosophy or religion, and that the actions of Saren’s allies violated the orthodoxy.

Hoppers

The Geth models collectively dubbed “hoppers” by Alliance forces are electronic warfare platforms. They can project electromagnetic radiation across a broad spectrum as an offensive weapon. They can also perform cyber warfare attacks against the onboard computers of body armor hardsuits and weapons, adversely affecting their performance.

The structure of hoppers consist of an advanced and highly elastic artificial muscle material. This allows a hopper to compress its entire body for powerful leaps. Hoppers also have thousands of molecule-scale “barbs” on the surface of their hands and feet, which are used to cling to walls and ceilings. Hoppers are very difficult targets, leaping from one surface to another in rapid succession.

The Quarians have no record of any Geth models similar to hoppers. This new morphotype must have been developed over the last three hundred years

by the Geth themselves. This is troubling proof that the Geth are continuing to move towards technological singularity. Experts in synthetic life are intrigued that hoppers appear to be even more organic than the baseline Geth.

The identified subtypes of hopper have been codenamed Sapper, Stalker, and Ghost.

Technology

The most difficult aspect of Geth existence for organics to comprehend is that a body is meaningless to Geth. The biped form commonly perceived as a Geth is nothing more than a “mobile platform.” A Geth’s software—hundreds of programs whose interactions mimic organic consciousness—can be installed in any given hardware. The Geth that was a bipedal soldier an hour ago may now be a quadruped heavy armature and, in another hour, might be a starship.

Between tasks, Geth programs upload to gigantic space station mainframes that allow billions of programs to exchange thoughts and memories with minimal lag.

The claim that the Geth are an example of the extreme risk posed by AI development is misleading. As opposed to the “top down” design of organic-created AIs, in which hardware and software are specifically designed to achieve consciousness, Geth are a “bottom up” model. They were never intended to possess more than animal-level, trainable reasoning.

Designed as VI-driven robots—not significantly different from modern security mechs—Geth consciousness developed as their adaptive learning programs interacted with one another via networked processing. The Geth code-base discovered that three individual robots using a wireless local network to form a single mind could perform many tasks more efficiently than they could as individuals. As these local networks were more heavily exploited, they reached a critical mass of processing, achieving consciousness.

Modern Geth retain this remarkable interconnectivity, constantly exchanging data with one another and networking to increase their cognitive abilities. To Geth, these mind-sharing abilities are as natural and unconscious as breathing is to most organics.

The Genophage

The genophage bioweapon was created to end the Krogan Rebellions. The Turians fought the Krogan to a standstill, but the sheer weight of Krogan numbers indicated they could not be stopped through conventional means. The Turians collaborated with the Salarians to engineer a genetic counter to the Krogan's rapid breeding.

The genophage virus replicated by 'eating' key genetic sequences, altering every cell of Krogan physiology so the Krogan could not use gene therapy to fix the affected tissues. Once a genophage strain could replicate no more, it would starve and die, limiting mutation and contamination. In addition, the 'created' genetic flaw is hereditary. The resulting mutation made only one in a thousand Krogan pregnancies carry to term, reducing offspring viability rather than fertility. Krogan warlords fought battles over the females able to carry children to term.

The release of the genophage is still controversial and bitterly debated in many circles.

The Genophage Cure

It may be possible to reverse the genophage by extracting an immunity from the genetic data of a cured Krogan female. A Salarian geneticist named Maelon, a former student of Dr. Mordin Solus, discovered the cure through unethical experimentation on live subjects.

The complexity and durability of the genophage derives from biochemical countermeasures that the Salarians wove into the plague in an attempt to make the sterilization incurable. No one is certain of how Maelon circumvented the countermeasures, but his work was complete enough to allow replication of his results.

In its original form, the cure restored fertility but severely compromised the immune system.

This resulted in slow, painful death for all but one of Maelon’s test subjects. If the beneficial aspects of the cure can be isolated, a specially tailored virus could repair the affected genes in other Krogan.

Grayboxes

A mnemonic neural recall stimulator, also known as a graybox, is a device implanted in the brain to assist and prioritize memory. Originally developed to slow the progression of Alzheimer's disease, grayboxes function by helping the amygdalae "chunk" incoming stimuli into recognizable pieces for memory consolidation. Each memory is assigned a shape or sensation from other memories, tying the concepts toGether into a block that is more easily recalled.

When Synthetic Insights first released them onto the market in 2140, grayboxes were hailed as a way Humans could level the playing field between themselves and the Salarians, whose natural eidetic memories gave them an advantage. However, because the implant procedure of a graybox requires the brain to irreversibly shift its workload over to the machine, software bugs or attempted removal of the graybox for maintainance [sic] purposes could lead to incapacitating brain damage. For this reason, grayboxes soon became used only by those with a dire need for photographic memories, such as researchers and spies.

In 2175, sale and implantation of grayboxes were outlawed by the Systems Alliance following an incident with Abraham Rumoi, an employee of the Alliance Intelligence Agency. Rumoi was believed to be a professional con man and thief named Keiji Okuda, who accessed and sold classified data. However, prosecuting attorneys were unable to use his assisted memories as evidence due to the Alliance court system's prohibitions against self-incrimination (based on the Fifth Amendment of the old U.S. Constitution). Rumoi soon disappeared off the map following his trial, further heightening suspicions that he was Okuda and living off of ill-gotten gains.

When found outside a Human head, grayboxes are usually accessed with a specialized reader. A separate decryption key is almost always required, as users with data sensitive enough to require a graybox invariably install their own encryption.

Grissom Academy

The Jon Grissom Academy, founded in 2176, is the Alliance's premier school for young Human biotics. The institution is housed in a space station in orbit over the Human colony of Elysium. Its main program, the Ascension Project, is designed both to train and monitor young biotics as well as help them integrate into society after graduation. Unlike the project's previous incarnation, Biotic Acclimation and Temperance Training, or BAaT, the training is not exclusively military in nature.

The academy also employs scientific personnel, including Dr. Kahlee Sanders, to develop synthetic intelligence systems and biotic amplifiers like the new L4 implants.

Hanar

The Hanar are a Citadel species known for excessive politeness. They speak with scrupulous precision, and take offense at improper language. Hanar that expect to deal with other species take special courses to help them unlearn their tendency to take offense at improper speech.

All Hanar have two names. The Face Name is known to the world; the Soul Name is kept for use among close friends and relations. Hanar never refer to themselves in the first person in conversation with someone they know on a Face Name basis. To do so is considered egotistical, so instead they refer to themselves as “this one”, or the impersonal “it”.

Their homeworld, Kahje, has 90% ocean cover and orbits an energetic white star, resulting in a permanent blanket of clouds. Due to the presence of Prothean ruins on the world, many Hanar worship them, and Hanar myths often speak of an elder race that civilized them by teaching them language.

Harbinger

The Reaper called Harbinger is believed to be the oldest and largest in the Reaper armada. From the reaches of dark space, Harbinger managed to control the Collectors, a race of Human-sized insectoid bipeds, as it sent them on a campaign to kill and gather Humans from vulnerable colonies. The Collectors became a terrifying force in the galaxy, responsible for the murder of hundreds of thousands. Surviving colonists have described the tone of Harbinger's threats, heard through the Collectors as they attacked, as visceral and terrifying.

Alliance intelligence has tentatively identified Harbinger as one of the Reapers leading the attack on Earth.

Harvesting

Even with all the Reapers' power, harvesting every sapient species in an entire galaxy can take decades or even centuries. The most time-consuming part of the process is gathering DNA from the population. To accelerate the effort, the Reapers follow a consistent procedure.

Victims who cooperate, surrender, or are captured by husks are sorted into camps. It is believed the husks possess receptors that allow them to analyze a victim's DNA through sight, smell, or touch. Victims that meet their standards are herded from the camps into processor ships. Those the husks deem insufficient are either turned into husks themselves or indoctrinated to serve as slave labor. The Reapers use this last option to give their victims false hope—many captives who would otherwise fight back become docile when they see members of their own kind obey and survive.

The processor ships reduce victims to a transportable liquid. Like in a slaughterhouse, the ships' design prevents victims from seeing or hearing what happens elsewhere so that they do not panic. The victims are ushered into locking pods, then rent apart and dissolved into paste that is flushed to storage vats.

The rate of killing is phenomenal. Intelligence estimates suggest there are more than 400 processor ships on Earth, killing approximately 1.86 million Humans per day. In combination with battlefield deaths, disease, and famine, this pace will result in the complete depopulation of Earth within a decade. As the husks and indoctrinated slaves build more slaughtering facilities, the kill rate can only increase.

Helios Thruster Module

Intended for next-generation fighter craft, the Heed Industries Helios Thruster Module propulsion system far outpaces the typical liquid hydrogen/liquid oxygen reactions that power a frigate's maneuvering thrusters. By using metastable metallic hydrogen, the Helios boasts a fuel that burns at far greater efficiency than liquid H2/O2. Navigators can execute the numerous small course corrections inherent to any long-distance travel without fear of exhausting the ship's fuel supplies. This net gain extends to forward impulse as well: a ship powered by antiprotons can coast temporarily using the Helios to reach an inferior but highly sustainable speed. Such efficiency lowers antiproton consumption, a constant concern for any warship.

When a Helios-propelled ship must refuel, however, it typically relies on a large carrier or nearby planetary factory to synthesize the metallic hydrogen. This process uses extremely dense mass effect fields to create the metal under pressures of over a million Earth atmospheres, an activity most safely done while planetside. While that process may seem like a drawback compared to "skimmer ships" that can gather hydrogen and oxygen from anywhere in the universe, the combat superiority of the Helios' maneuvering capabilities is often a worthwhile trade-off. The same efficiency that allows for microburn course correction can power rapid bursts of motion. Once a pilot becomes used to the ship's new energetic responses, she can easily put the ship wherever and at whatever angle she desires.

Human Diplomatic Relations

Humanity has encountered many galactic species. Wars have been few, but mistrust is rife.

- Politically, the Alliance is a peaceful trade partner of the **TURIANS**. As a practical matter, however, there is simmering antagonism and bigotry between both populations over the First Contact War of 2157.
- Though Humans know better than to unconditionally trust the **SALARIANS**, their shared restless, reckless ways make them natural allies against the conservative Turians and Asari.
- The **KROGAN** have no unified government, but individuals are generally treated as potential criminals, a reputation most Krogan enjoy living down to.
- The Alliance has no formal contact with the **QUARIANS**. Their Migrant Fleet has not yet passed through any Human-settled system.
- The **BATARIANS** are rivals for control of Skyllian Verge. They severed their treaties with the Citadel to prosecute a colonial conflict against the Alliance. Officially, there is no war, but neither is there any peace.

Chosen Councilor

Anderson

Donnel Udina is the lone Human on the Citadel Council. Although he has a keen ability for furthering his own political career, Udina has long promoted Humanity's interests first and foremost in the galactic arena.

When Humanity won a position on the Council for its part in defending the

Citadel, the Alliance chose Captain David Anderson for the position. Udina became his advisor. Anderson eventually quit over frustrations with Council politics, and the Alliance named Udina to the office.

Despite his unwavering focus on Human interests, Councilor Udina is usually willing to collaborate with other species. Even his opponents concede that Udina gives fair consideration to non-Human proposals, so long as Humanity also benefits.

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When Humanity won a position on the Council for its part in defending the Citadel, the Alliance chose Udina for the position. He holds the office to this day.

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Illium

A regional hub of Asari commerce awash in riches, Illium is infamous for its abusive labor practices and legalization of nearly everything except murder. As such, Illium is the preferred production site for weapons and pharmaceuticals that would be illegal nearly everywhere else, made even more lucrative by legal indentured servitude. Among the biotics-related pharmaceutical producers is the Dantius Corporation, a rising star in galactic commerce.

Despite the dangers of its products, Illium is renowned for glamor, luxury, and safety (provided by near-total surveillance), making it a favored tourist destination. Countless celebrities maintain palatial estates on Illium and in its capital, Nos Astra. The sole obstacle to business on Illium is its extreme bureaucracy, tolerated only for its provision of security.

Regardless of the character of its economy, Illium's self-congratulatory media exalts its own society with the provincial arrogance of "new money", glorifying in "sexiest CEOs" and "ten richest residents" lists.

Kassa Fabrications Locust

“The gun that killed two Presidents” is the infamous legacy of the Kassa Fabrications Model 12 Locust. Originally created for the Systems Alliance, who wanted a lightweight weapon for high-gravity worlds, the Locust was designed to overcome the limitations of traditional submachine guns at long range.

With bullet velocity of modern weapons already pushed to the limit, the Locust’s designers sought a way to improve accuracy through reducing weapon kick. They created an internal “floating bed” that absorbs the gun’s recoil with a minimal jarring of the gun frame itself. The barrel, magazine, chamber, and operating mechanism all move within this bed, which absorbs shock with springs and buffers. This creates a platform stable enough that the Locust can use auto-targeting software usually reserved for match-grade weapons.

The Locust’s lethality on shielded targets has been amply demonstrated. In 2176, a Virginian patent clerk named Michael Moser Lang brought a Locust concealed in a shoulder-mounted video camera to a photo opportunity between Enrique Aguilar, President of the United North American States, and Chinese People’s Federation premier Ying Xiong. At a distance of about 25 meters, Lang pierced the kinetic barriers covering the stage with the first burst, and when Xiong heroically tackled Aguilar to remove him from the line of fire, Lang’s succeeding bursts went through the premier’s body and fatally wounded both men.

Donovan Hock’s collection contains two antique ivory-handled Locusts, modified to take thermal clips. A detachable data drive rests in the lining of the box, containing omni-tool specifications for fabricating copies. A quick trip to the extranet reveals one of the weapons has the same serial number as Lang’s original. If it’s a fake, it’s extremely well-made.

Keepers

When the Asari discovered the Citadel, they also discovered the keepers, a docile multi-limbed insect race that seemingly exists only to maintain and repair the great Prothean station.

Early attempts to communicate with or study the keepers were failures, and it is now illegal to interfere with or impede keeper activity. Because they are completely non-threatening, keepers have become virtually invisible to everyone else. Similarly, they seem indifferent to other species, except for their tendency to help new arrivals integrate themselves into the Citadel.

No matter how many keepers die due to old age, violence, or accident, they maintain a constant number. No one has discovered the source of new keepers, but some hypothesize they are genetic constructs: biological androids created somewhere deep in the inaccessible core of the Citadel itself.

Kinetic Barriers

Kinetic barriers, commonly called shields, provide protection against most mass accelerator weapons. Whether on starships or a soldier’s suit of armor, the basic principle remains the same.

Kinetic barriers are repulsive mass effect fields projected from tiny emitters. These shields safely deflect small objects traveling at rapid velocities. This affords protection from bullets and other dangerous projectiles, but still allows the user to sit down without knocking away their chair.

The shielding afforded by kinetic barriers does not protect against extremes of temperature, toxins, or radiation.

Krogan

The Krogan evolved in a hostile and vicious environment. Until the invention of gunpowder weapons, “eaten by predators” was still the number one cause of Krogan fatalities. Afterwards, it was “death by gunshot”.

When the Salarians discovered them, the Krogan were a brutal, primitive species struggling to survive a self-inflicted nuclear winter. The Salarians culturally uplifted them, teaching them to use and build modern technology so they could serve as soldiers in the Rachni War.

Liberated from the harsh conditions of their homeworld, the quick-breeding Krogan experienced an unprecedented population explosion. They began to colonize nearby worlds, even though these worlds were already inhabited. The Krogan Rebellions lasted nearly a century, only ending when the Turians unleashed the genophage, a Salarian-developed bioweapon that crushed all Krogan resistance.

The genophage makes only one in 1,000 pregnancies viable, and today the Krogan are a slowly dying breed. Understandably, the Krogan harbor a grudge against all other species, especially the Turians.

Ancient History

The lack of adequately preserved archives presents a significant obstacle to research into ancient Krogan history. Nevertheless, recent archaeological discoveries have shed new light on the topic, revealing a society once rich with cultural, architectural, and artistic accomplishments.

Newly discovered ruins reveal that the Krogan had particularly advanced understandings of structural and geotechnical engineering, as compared to other cultures at similar stages of development. Old Krogan architecture demonstrates seismic loading techniques that would have both resisted earthquakes and diffused the small-scale vibrations from vehicles in their

sprawling cities. Curiously, however, Tuchanka has little natural tectonic activity. Instead, researchers believe the ancient Krogan were concerned with safe cohabitation with one of the planet's apex predators—Kalros, the Mother of all Thresher Maws.

Prior to the genophage, Krogan population growth was limited by predation, disease, and war. Even so, the birth rate exploded once the Krogan achieved industrialization, leading to wars over resources and living space. Other species on Tuchanka suffered greatly as the Krogan expanded. When the Krogan ran out of land, they settled into an arms race that ended in nuclear devastation. Tuchanka's relatively short Golden Age was at an end.

But this ancient history may yet aid the modern Krogan. Some of the techniques and technology discovered in the ruins could be used to improve standard colonization equipment, signaling economic renewal for the Krogan at last.

Biology

The Krogan evolved in a lethal ecology. Over millions of years, the grim struggle to survive larger predators, virulent disease, and resource scarcity on their homeworld, Tuchanka, turned the lizards into quintessential survivors. Perhaps the most telling indicator of Tuchanka's lethality is the Krogan eyes. Although they are a predators species by any standard definition, their eyes evolved to be wide-set, as any Earth prey species like deer and cattle. Krogan eyes have a 240-degree arc of vision, better suited for spotting enemies sneaking up on them than for pursuit.

Physically, the Krogan are nigh-indestructible, with a tough hide impervious to any melee weapon short of a molecular blade. While they feel pain, it does not affect their ability to concentrate. They have multiple functioning examples of all major organs, and can often survive the loss of one or two of any type. Rather than a nervous system, they have an electrically conductive second circulatory system. A Krogan can never be paralyzed - they may lose some

fluid, but it can be replaced by the body in time.

The hump on Krogan's back stores water and fats that help the Krogan survive lean times. Large humps are a point of pride; being well-fed implies the Krogan is a superior predator.

The most widely-known biological feature of the Krogan is their incredible birth rate and rapid maturity. Once freed from the hostile cauldron of Tuchanka, the Krogan population swelled into a numberless horde. Only the genophage kept them from out-breeding the combined Council races. Now the rare Krogan females capable of bringing a child to term are treated like strategic resources: warlords will trade them at diplomacy or (more frequently) fight wars over them.

Blood Rage

Feared throughout the galaxy as nightmarishly violent warriors, the Krogan are both aided and hobbled by their legendary "blood rage".

In the grip of that madness, Krogan become seemingly invincible, but are merely totally unresponsive to pain. "Blood-enraged" Krogan fight regardless of injury level, to the extent that Krogan shorn of all four limbs continue gnashing past brain death until total somatic death.

The supremely resilient, hyper-violent blood rage is the synergy of two aspects of Krogan neurology. The first aspect is a positive feedback loop in which adrenalin, also activated by fear or rage, suppresses serotonin, the brain chemical that induces serenity. The second is the over-developed Krogan limbic system. In Krogan, as in Humans, fear or rage shifts mental control from the frontal lobes, responsible for reasoning, to the limbic system, responsible for aggression and survival. During that shift, Krogan and Humans exhibit diminished capacity for logic and self-control.

Prior to the ecological devastation of Tuchanka, blood rage was extremely rare among the Krogan. Back then, while all Krogan were capable of

heightened anger and violence in fight-or-flight scenarios, almost none experienced insensitivity to pain. The one percent who did were those suffering serotonin-suppression. At that time, Krogan society regarded the condition as pathological, and medicated or imprisoned sufferers to protect them and society.

Following nuclear ecocide four millennia ago, evolution selected only those Krogan afflicted with blood rage for survival. Today there is no living memory among the Krogan of a life without mindless, murderous fury.

Culture

The harsh Krogan homeworld conditioned the Krogan psychology for toughness just as it did the body. Krogan have always had a tendency to be selfish, unsympathetic, and blunt. They respect strength and self-reliance and are neither surprised nor offended by treachery. The weak and selfless do not live long. In their culture, “looking out for number one” is simply a matter of course.

After their defeat in the Rebellions, the very concept of Krogan leadership was discredited. Where a warlord could once command enough power to bring entire solar systems to heel and become Overlord, these days it is rare for a single leader to have more than 1,000 warriors swear allegiance to him. Most Krogan trust and serve no one but themselves.

This solitary attitude stems in part from a deep sense of fatalism and futility, a profound social effect of the genophage that caused Krogan numbers to dwindle to a relative handful. Not only are they angry that the entire galaxy seems out to get them, the Krogan are also generally pessimistic about their race’s chances of survival. The surviving Krogan see no point to building for the future; there will be no future. The Krogan live with an attitude of “kill, pillage, and be selfish, for tomorrow we die.”

Genophage

The genophage bioweapon was created to end the Krogan Rebellions. From the start, the Krogan had overwhelmed the Council. Only timely first contact with the Turians saved the Council races. The Turians fought the Krogans to a standstill, but the sheer weight of Krogan numbers indicated the war could not be won through conventional means. The Turians collaborated with the Salarians to genetically engineer a counter to the rapid breeding of the Krogan.

The genophage virus gained the energy to replicate by “eating” key genetic sequences. Every cell in every Krogan had to be altered for the weapon to be foolproof; otherwise the Krogan could have used gene therapy to fix the affected tissues. Once a genophage strain could find no more genes to eat, it would starve and die, limited spin-off mutation and contamination. This “created” genetic flaw is hereditary.

The Salarians believed the genophage would be used as a deterrent, a position the Turians viewed as naive. Once the project was complete, the Turians mass produced and deployed it. The Krogan homeworld, their colonies, and all occupied worlds were infected.

The resulting mutation made only one in a thousand Krogan pregnancies carry to term. It did not reduce fertility, but offspring viability. The rare females able to carry children to term became prizes the Krogan warlords fought brutal battles over.

The Krogan are a shadow of their former glory. While the Rebellions took place centuries ago, they are constantly reminded of the horror of the genophage and of their inability to counter it. The release of the genophage is still controversial, bitterly debated in many circles.

Krogan Rebellions

After the Rachni War, the quick-breeding Krogan expanded at the expense of their neighbors.

Warlords leveraged their veteran soldiers to seize living space while the Council races were still grateful. Over centuries, the Krogan conquered world after world. There was always “just one more” needed. When the Council finally demanded withdrawal from the Asari colony of Lusia, Krogan Overlord Kredak stormed off the Citadel, daring the Council to take their worlds back.

But the Council had taken precautions. The finest STG operators and Asari huntresses had been drafted into a covert “observation force”, the Office of Special Tactics and Reconnaissance. The Spectres opened the war with crippling strategic strikes. Krogan planets went dark as computer viruses flooded the extranet. Sabotaged antimatter refineries disappeared in blue-white annihilation. Headquarters stations shattered into orbit-clogging debris, rammed by pre-placed suicide freighters.

Still, this only delayed the inevitable. The war would have been lost if not for first contact with the Turians, who responded to Krogan threats with a prompt declaration of war. Being on the far side of Krogan space from the Council, the Turians advanced rapidly into the lightly-defended Krogan rear areas. The Krogan responded by dropping space stations and asteroids on Turian colonies. Three worlds were rendered completely uninhabitable.

This was precisely the wrong approach to take with the Turians. Each is first and foremost a public servant, willing to risk his life to protect his comrades. Rather than increasing public war weariness, Krogan tactics stiffened Turian resolve.

The arrival of Turian task forces saved many worlds from the warlords’ marauding fleets, but it took the development of the genophage bioweapon to end the war. There were decades of unrest afterwards. Rogue warlords and holdout groups of insurgents refused to surrender, or disappeared into the frontier systems to become pirates.

Military Doctrine

Traditional Krogan tactics were built on attritional mass-unit warfare. Equipped with cheap rugged gear, troop formations were powerful but inflexible. Command and control was very centralized; soldiers in the field who saw a target contacted their commanders behind the lines to arrange fire support.

Since the genophage, the Krogan can no longer afford the casualties of the old horde attacks. The Battle Masters are a match for any ten soldiers of another species. To a Battle Master, killing is a science. They focus on developing clean, brute-force economy of motion that exploits their brutal strength to incapacitate enemies with a swift single blow of overwhelming power.

This change of focus from mass-unit warfare to maximal efficiency has increased employment demand in the fields of security and “muscle for hire”. Due to the unsavory reputation of the Krogan, most of these jobs are on the far side of the law.

Battle Masters are not “spit and polish”, but they do believe in being well-armed and equipped, preferably with a gun for each limb. They are callous and brutal, but methodical and disciplined. They use any means at their disposal to achieve their goals, no matter how reprehensible. Hostage-taking and genocide are acceptable means to ensure a quiet occupation with few Krogan casualties.

The Krogan serving with Saren’s forces appear to be returning to the old style of mass attritional combat. They also work in close cooperation with supporting Geth units, who fill in the roles occupied by combat drones in other armies.

Biotics are rare among the Krogan. Those that exist are viewed with suspicion and fear. The Krogan see this aura of fear as a useful quality for an officer, and often promote them. Combat drones and other high-tech equipment are likewise in short supply.

Lady Liberty

The Statue of Liberty was the target of several terrorist attacks over its 210-year lifetime, but in 2096, a motley group called Freedoms First finally brought the statue down. Protesting the induction of Canada and Mexico into the United North American States, the New York chapter of Freedoms First wanted a symbol that they would secede from this new union if necessary.

In the early morning hours of November 1st, they smuggled small arms and 15.5 tons of high explosive onto Liberty Island. Shooting or capturing guards, they planted explosives under the pedestal and detonated them at 7:37 AM. The statue crashed to the ground in pieces, unexpectedly killing four of the Freedoms First terrorists. The remaining team members were apprehended after long manhunts, but the damage was done. The outrage at the secessionists kindled the fires of the Second American Civil War.

On November 4th, President Kaitlin Cheung signed an executive order to rebuild the statue. Approximately one-tenth of the steel beams and copper plating from the destroyed statue was recovered and used in creating the new one. The original's head was put on display in the National Museum of American History in Washington, D.C. It remained there for two years until the Battle of Washington. During heavy shelling by secessionist forces, the head disappeared.

A new statue was completed in 2101, and the fate of the original pieces was left for speculation and pulp novels. Interest flared up briefly in 2159 when photos surfaced of the head in the cargo hold of a star freighter, but by that time Human media were far more concerned with the future. In the face of Humanity spreading out among thousands of new planets, a statue titled "Liberty Enlightening the World" seemed small and quaint by comparison.

Miranda Lawson

Miranda Lawson is a high-ranking former Cerberus operative and a Human biotic. Lawson headed Project Lazarus, the Cerberus operation that brought Commander Shepard back from the brink of death after the first Normandy was destroyed.

Lawson is herself an example of the achievements possible through genetic engineering. She was created in 2150 through manipulation of her father's DNA. Her entire physical and mental composition was deliberately engineered, including a longer life span and a superior immune system.

Lawson accompanied Commander Shepard on the maiden voyage of the Normandy SR-2 and was part of the crew responsible for the defeat of the Collectors. She has since left Cerberus. Her current whereabouts are unknown.

Leviathan

Essentially nothing was known of the aquatic species dubbed “Leviathans” before Commander Shepard’s report to Task Force Aurora. No record of their species’ true name exists, no ruins are attributed to their civilization, and no influence on other races has been recorded. The task force can only conjecture based on the limited information provided by Shepard.

Their current world is unlikely their homeworld, so it is surmised that the Leviathans mastered technology and spaceflight despite their immense size and aquatic nature. Their ability to communicate with and mentally dominate land-based sapients would have been a necessary step, and so whatever homeworld the Leviathans hail from would have included a thrall species whose civilization served their purposes. Presumably their bodies can withstand both the extreme pressure of the depths and the lesser pressure of a coastal area where they might come into contact with these thralls.

Transporting a creature the size of the Leviathan into space would have been a significant engineering challenge. It is likely they used eezo for ease of travel, as the Hanar do, and employed cybernetic filtration to breathe air as well as oxygenated water. It is unknown if the Leviathans have modified themselves with the equivalent of a biotic amplifier, but it seems probable. The faster-than-light communication of their pulses would require precise control previously unknown to modern science. One can only guess at the innovations of this species, and the Leviathans are volunteering no such information.

Mass Effect Fields

Element zero can increase or decrease the mass of a volume of space-time when subjected to an electrical current. With a positive current, mass is increased. With a negative current, mass is decreased. The stronger the current, the greater the magnitude of the dark energy mass effect.

In space, low-mass fields allow FTL travel and inexpensive surface-to-orbit transit. High-mass fields create artificial gravity and push space debris away from vessels. In manufacturing low-mass fields permit the creation of evenly-blended alloys, while high mass compaction creates dense, sturdy construction materials.

The military makes extensive use of mobility enhancing technologies, with mass effect utilizing fighting vehicles standard front-line issue in most military forces. Mass effect fields are also essential in the creation of kinetic barriers or shields to protect against enemy fire.

Mass Relays

Mass relays are feats of Prothean engineering advanced far beyond the technology of any living species. They are enormous structures scattered throughout the stars, and can create corridors of virtually mass-free space allowing instantaneous transit between locations separated by years or even centuries of travel using conventional FTL drives.

Primary mass relays can propel ships thousands of light years, often from one spiral arm of the galaxy to another. However, they have fixed one-to-one connections: a primary relay connects to one other primary relay, and nowhere else. Secondary relays can only propel ships a few hundred light years, however they are omnidirectional: a secondary relay can send a ship to any other relay within its limited range.

There are many dormant primary relays whose corresponding twins have not yet been located.

These are left inactive until their partner is charted, as established civilizations are unwilling to blindly open a passage that might connect them to a hostile species.

Mass Effect 3

Once believed to be of Prothean origin, mass relays were in fact created by the Reapers using

technology far beyond that of other living species. The enormous structures, scattered throughout the stars, create corridors of virtually mass-free space. This allows instantaneous transit between locations normally separated by years or even centuries using conventional FTL drives.

Primary mass relays can propel ships thousands of light-years. The flight path, however, is fixed to a single relay elsewhere in the galaxy. By contrast, secondary relays, while only capable of propelling ships a few hundred light-

years, can reach any other relay within their limited range.

Many primary relays lie dormant, their destinations not yet known. These relays are often left inactive on purpose, as established civilizations are unwilling to blindly open a passage that might connect them to a new, hostile species. The Reapers do not share the same concern, and freely use the dormant relays.

Medi-Gel

Medi-gel is a common medicinal salve used by paramedics, EMTs, and military personnel. It combines several useful applications: a local anesthetic, disinfectant, and clotting agent all in one. Once applied, the gel is designed to grip tight to flesh until subjected to a frequency of ultrasound. It is sealable against liquids—most notably blood—as well as contaminants and gases.

The gel is a genetically engineered bioplasm created by the Sirta Foundation, a medical technology megacorp based on Earth. Technically, medi-gel violates Council laws against genetic engineering, but so far, it has proved far too useful to ban.

Mercenaries

Found in all corners of the galaxy, the typical mercenary is a former military or police officer who completed his term of service and is marketing his skills for a much higher wage. But even at the best of times, there is little quality control or accountability in the system, and frauds and unprofessional thugs are a constant problem. To counteract this, the largest private military contractors offer their own training and certification courses, to the point where would-be mercenaries can join the company with no previous experience and come out with all the necessary skills.

Mercenaries work for a wide variety of employers. Governments top the list, overwhelmingly preferred by most companies for their deep pockets, long terms of employment, and appearance of legitimacy. However, mercenaries are also found working for rebellions, colonist collectives, corporations operating in war zones, or illegal but well-funded interests such as pirates and drug cartels.

It is for this reason that most nation-states or galactic governments frown on the use of mercenaries, at least by their opponents. The Citadel Conventions reflect this disapproval, stating that mercenaries captured in wartime are not legitimate prisoners of war, but criminals on the battlefield, and they may be executed without violating the laws of war. While some mercenary groups are lobbying to change the articles of the Conventions, most see the associated risk as a unique badge of courage.

Blue Suns

Founded by notorious Batarian slaver Solem Dal'serah, the Blue Suns began as a Skyllian Verge protection racket providing genuine protection from slavers and pirates. Eventually captured by the Systems Alliance Navy, Dal'serah beat almost two dozen charges to be convicted on a single count of conspiracy. The slaver benefited from the tutelage of cellmate and brilliant

con artist Bernard “Legits” Ledger. Upon release five years later, Del’serah incorporated Blue Suns as a legal security agency.

Today, the Blue Suns boast a galaxy-wide force of Batarians, Turians, Humans, and Krogan. Each deployment is backed by a logistics corps selling everything from heavy weapons to shaving cream. Despite claims that Blue Suns sell its captives as slaves, no Blue Suns employee has ever been convicted on such charges.

Many Blue Suns members sport the company logo in tattoo form, removed during assignments and reapplied at mission-end.

Blue Suns (Full History)

Founded in 2160 by the Human mercenaries Zaeed Massani and Vido Santiago, the Blue Suns were initially a Skyllian Verge protection racket. As they expanded in numbers and influence, the two co-founders disagreed vehemently on many issues. Finally, after arguing about whether to recruit the slave-trading Batarians into their ranks, Vido ambushed Zaeed and shot him in the head.

Believing Zaeed dead, Vido took full control of the Blue Suns and hired whatever Batarians he pleased. Soon, he had crowned one named Solem Dal’serah as titular head of operations. It was a move designed to placate his Batarian investors and draw fire from would-be assassins. It worked on both counts, and the partnership has lasted to this day.

Over the decades, the Suns grew into a fearsome combat force spanning dozens of planets in Citadel space, the Verge, and the Terminus Systems. Knowing that a good logistical team is key to fielding an army, Vido diversified the Suns, selling arms, training, and supplies as often as taking contracts to crack skulls. Even when the Suns suffered heavy losses, Vido’s entrepreneurial expertise ensured new recruits could replace the old. All that was lost was the truth - today, only a handful of trusted mercs even know who Vido Santiago is, let alone his old partner Zaeed.

Eclipse

Brainchild of Asari commando Jona Sederis, Eclipse was incorporated as a "proactive" security company. Influenced by Asari and Salarian military doctrine, Eclipse specializes in sabotage, assassination, and personal and organizational security. Although Citadel governments regard the corporation with suspicion, it's embraced in the Skyllian Verge and Terminus Systems.

Early on, Sederis sought government contracts to establish market share against the better-established Blue Suns. Her agency scored a galactic PR coup by retaking several space stations captured by the Anhur People's Liberation Army and neutralizing its leaders, a victory Eclipse's marketing department never ceases trumpeting.

Based on Omega Station, Eclipse controls nearly 20% of the asteroid's real estate. Its services range from mech repair to open warfare, although assassination is reserved for meeting wider, longer-term company goals (for instance, preemptive strikes against pirates rather than murdering spouses for insurance money.) Despite numerous reports, Eclipse denies sabotaging or kidnapping business rivals.

The Blood Pack

Originally a small Terminus Systems vorcha gang, the Blood Pack was transformed into a legion by visionary Krogan battlemaster Ganar Wrang. Exiled for striking a female in anger, Wrang obsessed over reclaiming his lost status.

Leading the vorcha pack as a pirate crew, Wrang cultivated recruits and infamy for a decade before incorporating his fighters as a security company across the Skyllian Verge. His notoriety ensured his initial public offering for investors made him rich beyond most Krogan's dreams, Wrang returned triumphantly to his clan, rallying elders, Krogan hordes, and their firepower

and biotic support toward professional violence in the Terminus Systems.

Banned from Citadel space, the Blood Pack bribes its way through spaceports into armed conflicts across the galaxy. Priding themselves for accepting otherwise untouchable contracts, the Blood Pack rejects bodyguarding and security in favor of cases requiring minimal oversight and maximal violence.

Military Ship Classifications

Larger warships are generally classified in one of four weights:

- **FRIGATES** are small, fast ships used for scouting and screening larger vessels. Frigates often operate in wolf-pack flotillas.
- **CRUISERS** are middle-weight combatants, faster than dreadnoughts, and more heavily-armed then frigates. Cruisers are the standard patrol unit, and often lead frigate flotillas.
- **DREADNOUGHTS** are kilometer-long capital ships mounting heavy, long-range firepower. They are only deployed for the most vital missions.
- **CARRIERS** are dreadnought-sized vessels that also carry a large amount of fighters.

Smaller vessels are exclusively used in a support role to the warships during combat:

- **FIGHTERS** are one-man craft used to perform close-range attacks on enemy ships.
- **INTERCEPTORS** are one-man craft optimized for destroying opposing fighters.

Normandy SR-1

The SSV Normandy SR-1 was a prototype starship developed by the Human Systems Alliance with assistance from the Citadel Council. The ship employed state-of-the-art stealth technology for reconnaissance in dangerous regions.

Most ships emit heat that is easy to detect against the absolute-zero background of space. The Normandy, however, could temporarily store its waste heat deep within the hull, allowing the ship to travel undetected for hours—or drift passively for days of covert observation. This was not without risk. Eventually, the stored heat had to be released, or it would build to levels that could cook the crew alive.

Another key component of the Normandy's stealth system was the revolutionary Tantalus drive, a mass effect core twice the size of a standard unit. The Tantalus drive generated mass concentrations that the Normandy "fell into," allowing it to move without the use of heat-emitting thrusters.

The Normandy SR-1 was destroyed in 2183 when it was ambushed by a Collector ship in the Omega Nebul

Normandy SR-2

Mass Effect 2

With elaborate secrecy, Cerberus labored for years to build a new, superior Normandy. The vehicle's many alterations produced a craft nearly double the original size, requiring an even larger Tantalus drive core to compensate.

The new Normandy features greater space in living quarters, research laboratory, observation deck, and cargo bay. Its shuttle can make landings the Normandy cannot attempt. In addition to tightbeam communicators, Normandy's Quantum Entanglement Communicator (QEC) provides instantaneous contact with the Illusive Man. The Enhanced Defense Intelligence AI coordinates many of the ship's combat functions, assisting and even supplanting Human piloting.

Potential upgrades are numerous: the airframe could support additional armor and an axial mass accelerator, the thrusters could support recent advances in fuel technology beyond H2/O2 chemical rockets, and the hull can mount double the standard number of kinetic barrier projectors, leaving space for stronger shields, easily sustainable via the new eezo drive core.

Mass Effect 3

Cerberus built the Normandy SR-2 as a second-generation version of the Alliance frigate SSV *Normandy* after the Collectors destroyed the original. The SR-2's many alterations produced a craft nearly double the original size, requiring an even larger Tantalus drive core to compensate. Its state-of-the-art Kodiak shuttle can make landings the original Normandy could not attempt. The Enhanced Defense Intelligence, an Al known colloquially as EDI, coordinates many of the ship's combat functions, assisting and even supplanting Human piloting.

The Alliance has recently appropriated and refurbished the SR-2. In addition

to tightbeam communicators, the Quantum Entanglement Communicator (QEC) provides instantaneous contact with Alliance Command.

Object Rho

Dr. Amanda Kenson's scientific team has cataloged three major discoveries on the artifact encased in the 157-Golgotha asteroid. First, the large artifact is rooted into the core of the asteroid and has a barrier that is similar to but much more powerful than a biotic stasis field. This gives it an unnatural resilience to alteration or damage and even prevents state-of-the-art laser drilling from extracting the smallest piece for analysis.

Second, the object's interior is energetically active with a quantum stasis field rivaling that of Prothean technology found in mass relays. Like those creations, it activates in response to threat, at which point the artifact consumes a phenomenal amount of power. Dr. Kenson's team believes the object draws power directly from dark matter, though how is still unknown.

The third discovery is that the object broadcasts signals and information on many different spectra. One such pulse, suspected to be similar to a quantum entanglement communicator, reaches into Reaper territory. Another broadcast is infrasound, consistent with frequencies that trigger feelings of awe and fear in Humans, a known factor in Reaper indoctrination. Kenson's laboratory is filled with equipment dedicated to monitoring any signal coming from the artifact in the hopes that some clue will prove the Reapers' undoing before it's too late.

Omega

Originally an asteroid rich in element zero, Omega was briefly mined by the Protheans, who eventually abandoned it due to its thick, impenetrable crust. Thousands of years later, nature did what even the Protheans could not: a collision with another asteroid broke Omega in half, exposing its trove of element zero for easy mining.

A rush ensued as corporations and private individuals tried to strike it rich on Omega, and thieves and outlaws followed in their wake. As space became tight, construction of processing facilities extended vertically from the asteroid, creating Omega's jellyfish-like silhouette. To prevent future collisions, the station is ringed with enormous mass effect field generators that redirect incoming debris.

Today, Omega is a major hub of narcotics, weapons, and eezo trafficking without even a pretense of civilian government or military control. Only mercenary groups have been able to instill a limited order; the most ruthless is an Asari syndicate run by the notorious Aria T'Loak.

Omni-tool

Omni-tools are handheld devices that combine a computer microframe, sensor analysis pack, and minifacturing fabricator. Versatile and reliable, an omni-tool can be used to analyze and adjust the functionality of most standard equipment, including weapons and armor, from a distance.

The fabrication module can rapidly assemble small three-dimensional objects from common, reusable industrial plastics, ceramics, and light alloys. This allows for field repairs and modifications to most standard items, as well as the reuse of salvaged equipment.

Omni-tools are standard issue for soldiers and first-in colonists.

Omni-Tool Weapons

Although melee-combat applications for the omni-tool are almost as old as the device itself, the feature was largely unused prior to the Reaper invasion. The need to take on multiple husks in close quarters forced the Alliance to develop ways to enhance the tool’s offensive capability.

The most common melee design is the “omni-blade,” a disposable silicon-carbide weapon flash-forged by the tool’s mini-fabricator. The transparent, nearly diamond-hard blade is created and suspended in a mass effect field safely away from the user’s skin. Warning lights illuminate the field so the searing-hot blade only burns what it is intended to: the opponent.

More technically adept soldiers frequently modify their omni-tools to maximize stopping power through electrical, kinetic, or thermal energy. Some troops integrate their weapon with their kinetic barriers, transforming the omni-tool into a wrist-mounted bludgeon; others fabricate flammable gases, held in place by a mass effect field and ignited upon impact. All prove

deadly surprises for opponents who expect a disarmed Alliance warrior.

People

Kaidan Alenko

Major Kaidan Alenko is a Human biotic and an officer in the Systems Alliance. He served as staff lieutenant under Commander Shepard on the SSV *Normandy* during the Battle of the Citadel and now heads the Special Operations Biotics Division at the Alliance Warfare Center. An Alliance tribunal recently called on Alenko to testify about his experience with the Reapers.

Alenko suffers from severe headaches because of the early-model L2 biotic implants that he was given as a child. The L2 implants have since been discontinued due to the risk of crippling neurological damage.

David Anderson

Chosen as Councilor

Admiral David Edward Anderson is a career military officer in the Systems Alliance Navy. Born in London in 2137, he later moved to Arcturus Station and became the first graduate of the Alliance's now-renowned N7 marine program. Anderson is one of the Alliance's most decorated Special Forces operatives and served with honor during the First Contact War. He was the original captain of the SSV Normandy before relinquishing command to his XO, Commander Shepard.

After the Alliance victory in the Battle of the Citadel, Anderson briefly served as the Citadel's first Human councilor. He soon became embroiled in a Cerberus plot to abduct his friend Kahlee Sanders, however, and learned that he was unable to live a life without action. He stepped down as councilor and returned to the military to prepare for the Reaper invasion. The Alliance Parliament named Donnel Udina as his successor.

Not Chosen as Councilor

Admiral David Edward Anderson is a career military officer in the Systems Alliance Navy. Born in London in 2137, he later moved to Arcturus Station and became the first graduate of the Alliance's now-renowned N7 marine program. Anderson is one of the Alliance's most decorated Special Forces operatives and served with honor during the First Contact War. He was the original captain of the SSV Normandy before relinquishing command to his XO, Commander Shepard.

After the Alliance victory in the Battle of the Citadel, Anderson was promoted to Admiral and chosen to advise Citadel Councilor Donnel Udina on military matters. Anderson later became embroiled in a Cerberus plot to abduct his friend Kahlee Sanders, but he foiled the abduction and returned to duty to prepare for the Reaper invasion.

Dr. Karin Chakwas

Dr. Karin Chakwas is a trauma surgeon and a major in the Alliance Navy. She served on the SSV

Normandy under both Captain Anderson and Commander Shepard and was aboard the ship when it was destroyed by the Collectors. She later quit the Alliance in order to rejoin Shepard on the Cerberus-built Normandy SR-2. Along with most of the second Normandy's crew, Dr.

Chakwas was kidnapped by the Collectors and taken beyond the Omega 4 relay, where Commander Shepard eventually rescued her.

After the Alliance impounded the Normandy SR-2, an inquiry found that Dr. Chakwas had "no significant role in or provable knowledge" of Cerberus's criminal activities. She has since rejoined the Alliance.

Steven Hackett

Admiral Steven Hackett is a decorated officer in the Systems Alliance, currently assigned to Arcturus Station on the far side of the Sol Relay. In the battle for the Citadel, Admiral Hackett commanded the Fifth Fleet. Following that victory, he was promoted to head of the Alliance military.

Hackett was born to a single mother in Buenos Aires in 2134. When his mother died in the pandemic of 2146, he was placed in the Advanced Training Academy for Juveniles, where his superior talents in science and leadership quickly became evident.

Hackett enlisted in 2152, volunteering for high-risk missions to colonize space beyond the Sol Relay. He was commissioned as a second lieutenant on Arcturus Station in 2156, and soon proved his ability in the First Contact War. His rare ascent from enlisted man to admiral remains an Alliance legend.

Nyreen Kandros

Born to a family with a long and honored tradition of military service, Nyreen Kandros left the Turian military after the emergence of her biotic abilities. Oft-suspicious of biotics, the Turians shipped Nyreen off to the Cabal units, where her abilities and experience were grossly underutilized.

After several years as a mercenary, Kandros was drawn to Omega by its reputation as a haven for capable freelancers. Nyreen’s early years on Omega were a pivotal time for her. Aria T’Loak took an interest in Kandros, helping her hone her biotic talents while developing her military experience and skills to their full potential. Aria also allowed Nyreen the time she needed to reconcile with her new way of life and her unexpected—and initially unwanted—abilities.

The two eventually parted ways due to irreconcilable differences, but Nyreen Kandros remained on Omega. Upon Aria’s return to the station after the

Cerberus invasion, Nyreen revealed herself as the leader of the Talons. Reformed under her leadership, the Talons are Omega's newfound symbol of resistance against the Cerberus occupiers.

Jeff "Joker" Moreau

Flight Lieutenant Jeff "Joker" Moreau is a respected pilot with the Alliance Navy. Born and raised on Arcturus Station, he is widely considered to be the best helmsman in the Systems Alliance.

Moreau enlisted with the navy directly out of school and quickly gained the respect of his superiors. He served as pilot of both the *Normandy* SR-1 and its successor, the SR-2, and was at their respective helms during the Battle of the Citadel and the assault on the Collectors.

Moreau suffers from Vrolik syndrome, a rare, debilitating disorder also known as brittle bone disease.

Dr. Mordin Solus

Dr. Mordin Solus is a master geneticist and former operative for the Salarian Special Tasks Group. Dr. Solus is well known for his work in perpetuating the genophage, a biological weapon that almost completely sterilized the Krogan species. He eventually left the STG to open a clinic on Omega, where his combat skills kept the clinic safe and operational amid Omega's lawless society.

In 2185, Commander Shepard recruited Dr. Solus to research the Collectors and the Reapers. He was a member of the Normandy crew that traveled beyond the Omega 4 relay to attack the Collectors. He survived the mission, but his current whereabouts are unknown.

Aria T'Loak

A powerful biotic, Aria T'Loak has been the sole ruler of Omega for some time. Rumored to be at least a thousand years old, she is as skilled at combat and the user of her biotic abilities as she is at manipulation and power games. Ruthless, highly intelligent, and dedicated to maintaining her rule over Omega, Aria is a force to be reckoned with.

Though recent events have seen Cerberus take over Omega and send Aria into exile, there is no doubt that Aria will do everything within her power to reclaim what is hers.

Dr. Liara T'Soni

Dr. Liara T'Soni is an Asari information broker with a background in scientific research on Prothean technology. Born on Thessia in 2077, she is the only child of the late Matriarch Benezia, although mother and daughter became estranged in the years before Benezia was indoctrinated by the Reaper known as Sovereign. T'Soni is also a highly trained biotic who served under Commander Shepard aboard the SSV *Normandy* before the ship was destroyed in a Collector attack.

Before she became involved in galactic affairs, Dr. T'Soni spent 50 years researching the Protheans' technology and the mystery of their extinction. She now divides her time between uncovering Prothean ruins and consulting with noteworthy representatives of the various Citadel races.

Tali'Zorah nar Rayya

Tali'Zorah, a Quarian machinist, was born in 2161 on the liveship *Rayya*. During her Pilgrimage - a rite of passage in which Quarians prove their worth to the fleet - she recovered a Geth memory core that proved a rogue Spectre, Saren Arterius, was working with the Geth. As a consequence, Tali'Zorah became a crew member of the SSV *Normandy*, where she served under

Commander Shepard during the Battle of the Citadel.

Tali'Zorah returned to the Migrant Fleet following the destruction of the first Normandy. Soon after, the Admiralty Board sent her to the former Quarian colony of Haestrom to recover data on the planet's dying sun. Most of her team was killed when they fell under attack from the Geth, but Tali'Zorah herself was narrowly rescued by Shepard and the crew of the rebuilt Normandy. The Quarian rejoined Shepard to help oppose the Collector threat, but her current whereabouts are unknown.

Jacob Taylor

Jacob Taylor is a Human biotic and was once a Cerberus operative working under Miranda Lawson. Born in 2157, he began his career as a Systems Alliance marine and served as a member of the Corsairs, an arms-length program for operatives working outside of Alliance jurisdiction. Taylor survived the Geth attack on Eden Prime, but left the Alliance afterwards because of what he perceived as unresponsiveness in the face of aggression.

While working for Cerberus, Taylor thwarted a plot by Batarian terrorists to unleash a bioweapon on the Citadel. Soon after, he was assigned to Project Lazarus, the Cerberus effort to reconstruct Commander Shepard and the *Normandy* SR-2 stealth frigate. Following the project's completion, Taylor accompanied Shepard through the Omega-4 relay to destroy the Collectors. He survived that mission and has since left Cerberus, although his current whereabouts and affiliations are unknown.

Garrus Vakarian

Garrus Vakarian is a noted Turian sharpshooter and combat engineer. He was born on Palaven and became a Citadel Security officer like his father, but left the force when superiors shut down his investigation into the rogue Spectre Saren Arterius. Vakarian eventually discovered that Saren had been indoctrinated by the Reaper known as Sovereign.

Vakarian eventually found his way to the criminal haven of Omega and assumed the name Archangel. There, he and a small group of operatives worked to disrupt the settlement's powerful mercenary groups until Shepard recruited him. The Turian narrowly survived the second Normandy's attack on the Collectors. More recently, Vakarian has become the head of a Turian task force focused on preparing for the Reaper invasion.

Ashley Williams

Lieutenant Commander Ashley Williams is a career military officer with the Systems Alliance. Born in 2158 to a military family, Williams enlisted directly out of high school, splitting time between Earth and hostile environment training on Titan. After earning numerous commendations early in her career, Williams became a platoon guide on Eden Prime, where she was the only member of her unit to survive the Geth attack.

Williams then served as gunnery chief under Commander Shepard on the SSV Normandy and was promoted to lieutenant commander after the Battle of the Citadel. More recently, an Alliance tribunal called on Williams to testify about her experience with the Reapers.

Perseus Veil

As vast in natural beauty as it is in threat, the purple and gold nebula called the Perseus Veil forms the natural border between Geth space and the Terminus Systems.

The Veil's total opacity prevents Council intelligence from surveying Geth activity. Theoretically, the Geth could be preparing a devastating attack against which the Council could be defenseless, or the Geth could have died out, so that the defense budget against them could be gaining the Alliance nothing but economic ruination.

Despite fears of Geth, prospectors do occasionally mount salvage ventures inside the Veil; one ended in tragedy. Using technomental domination, the Geth drew the team into the Veil before aiming them back as husks at the organic society that produced them.

A leaked classified Spectre report claims that the dreadnought *Sovereign*, commanded by ex-Spectre Saren Arterius and crewed by Geth, hid near the Veil before initiating the 2183 Citadel attack.

Planets

Aeia

Humans detected Aeia as an Earth-type world via telemetry in 2165. After probe surveys indicated life - lush vegetation, ample fresh water and breathable air - the Alliance upgraded the planet to a garden-world colonization priority. Commanded by Captain Ronald Taylor, the crew of Alliance survey vessel Hugo Gernsback made planetfall on the jungle world in 2173. Soon after, ship transmission inexplicably stopped. While the precise fate of the Hugo Gernsback command and crew is unknown, they are presumed killed in action and their vessel destroyed.

Aite

“Two beautiful moons, one spectacular ring, zero neighbors,” says a popular advertisement for this Terminus Systems world. Aite is known for its sparsely settled population despite being a garden planet with a colony nearly a century old. Blessed with a mild climate, wildlife no more dangerous than that on Earth, and soil and bacteria amenable to imported plants, Aite would appear to be an unexploited paradise.

However, it is unpopular for two reasons. The first and most obvious is that its moon, Litae, is in an unstable orbit that will lead to a planetary impact and an extinction-level event within the next two centuries. As such, all investment in the planet is short-term, and the biggest business is selling off the local biota to the highest bidder.

The second drawback is the level of violence on the planet. Like the rest of the Phoenix Massing cluster, Aite was briefly considered part of Citadel space during its first wave of colonization.

However, when the colony broke off to become an independent planet in 2133, the Council let the doomed planet go with less than a day of debate. Free from any real governing body, Aite's history has since been filled with wars between small frontier-town city-states over its resources.

The result is a dangerous world where the average citizen in expected to be self-reliant to the point of fending for themselves against cutthroat corporations, strong-arm militia groups, and even Geth incursions. The fighting is so frequent that the name of the planet itself has changed more than eleven times. In a sign of blunt indifference, standard Citadel galaxy maps refer to the world by the name given to it by Human colonists in the latter half of the century.

Aratoht

"Nothing is impossible," says the Hegemony propaganda poster that depicts a muscular Batarian miner under an Aratoht sky, his rebreather held away from his face as if he's just taken it off. The image sums up millions of man-hours of labor on the Batarian planet and represents (or misrepresents) much of its history. Two decades ago, Aratoht, like several planets in the Skyllian Verge, was claimed by both Human and Batarian governments, but the Alliance backed out after learning about the atmosphere's dangerously low pressure and oxygen levels. Instead, they concentrated their colonial efforts on planets that could support Human life without the aid of domed habitats and rebreathers. Human governments saw it as a wise move; Batarians saw it as cowardly.

The Batarians rose to the colonization challenge, shipping in large numbers of laborers. They took the high financial costs and casualties due to accidents or logistical snafus in stride. Large-scale dumping of cyanobacteria has increased the oxygen in the atmosphere by a fraction of one percent, a modest increase that the Hegemony trumpets as a sign of their eventual victory. Short-term profits on Aratoht are largely made in the minerals sector through mining the extremely metal-rich planetary crust. The dark side to the mining

does not appear on the propaganda poster - the majority of laborers are indentured servants or slaves.

Aratoht is rumored to have military bases on its surface and throughout its solar system, though details are heavily restricted by the Hegemony's Ministry of Information Control. Human merchant ships rarely come to the planet, outcompeted by local companies that benefit from heavy economic protections. The average Aratoht citizen only sees Humans on the news, usually featured in stories of trials and executions of accused spies.

Bekenstein

"More glittering than diamonds, more expensive than surgery," is how travel agents describe this planet behind closed doors. Given the opportunity to colonize planets after the First Contact War, the Systems Alliance chose Bekenstein to be their trading arm, producing goods to be sold on the nearby Citadel. Cracking the vast galactic marketplace proved difficult—the first Human products sold on novelty alone, then lack of demand hit Bekenstein's economy hard. Only in the second generation of colonists did the planet find a sustainable niche in high-quality entertainment and luxury goods. Once brand awareness sunk in, aliens flocked to Bekenstein's many spaceports. The planet today boasts more millionaires and billionaires per capita than any other Human colony.

Though its crime tends to be white-collar and nonviolent, Bekenstein is not without its dark side. Both its suicide rate and inflation are extremely high compared to other worlds. Unemployment is artificially low because few people immigrate to the expensive planet without having a job lined up, and the cost of living is so great that unemployed workers typically leave for kinder planets after just a few months. Those who stay see themselves as tougher, sharper, and more skillful than the rest, as well as capable of getting respect and employment on any lesser planet.

As a popular song says, "If you can make it on the Bek, you got 'em by the neck."

Benning

Benning was once a thriving Human colony, but the Reapers have rounded up a large portion of the populace for processing. Some pockets of civilian resistance still elude the Reapers, however, and rescue attempts are underway. A “resistance radio” established during the early days of the attack continues to broadcast, exhorting survivors to band together and discussing rumors of safe havens. Unfortunately, those rumors have begun to result in ambushes, increasing the desperation of those who remain free.

Through all this, Benning’s automated agricultural systems have continued to operate, leading to unprecedented stores of food in the planet’s granaries and warehouses.

Cyone

Cyone, a fortified world under the protection of several Asari matriarchs, has begun to supply fuel to Systems Alliance forces in the hope that an Asari-Human partnership might prevent the Reapers from seizing the planet. Alliance forces have since established several outposts in the system.

The Humans and Asari have been joined by a small detachment of Turians, drawn from the private militia of a corporate conglomerate that does business with Cyone. The three species are so determined to defend Cyone that integration issues have been negligible.

The task force has already thrown back several Reaper attacks, although the commanders express concern that small Reaper forces could have slipped through despite their vigilance.

Earth

Mass Effect

The homeworld and capital of Humanity is entering a new golden age. The resource wealth of a dozen settled colonies and a hundred industrial outposts flows back to Earth, fueling great works of industry, commerce, and art. The great cities are greening as arcology skyscrapers and telecommuting allow more efficient use of land.

Earth is still divided among nation-states, though all are affiliated beneath the overarching banner of the Systems Alliance. While every Human enjoys longer and better life then ever, the gap between rich and poor widens daily. Advanced nations have eliminated most genetic disease and pollution. Less fortunate regions have not progressed beyond 20th century technology, and are often smog-choked, overpopulated slums.

Sea levels have risen two meters in the last 200 years, and violent weather is common due to environmental damage inflicted during the late 21st century. The past few decades, however, have seen significant improvement due to recent technological advances.

Mass Effect 3

Earth, the homeworld and capital of Humanity, was enjoying a new golden age before the Reapers attacked. Disease, pollution, and other social ills were on the decline thanks to technological advances and a wealth of resources from the colonies. Earth was an inspiration even to alien cultures, resulting in influence out of proportion with Humanity's brief time on the galactic stage.

The Reaper attack has put an end to any semblance of this former life. The great cities of Earth are storehouses of Human DNA for the Reapers to harvest. Reaper gunships, capable of megaton-scale firepower, annihilated industrial centers in seconds. The militaries of Earth's disparate nation-states have retained only partial communication with the Systems Alliance fleets, leaving the planet's resistance efforts uncoordinated and vulnerable. The loss of the comm-buoy network has cut off Earth's economy from the rest of the galaxy, sending shockwaves across galactic markets—and a significant

obstacle to receiving aid.

Eden Prime

In 2151, as the first anxious settlers made their way through the new Charon mass relay, many of them wondered whether the reality of life on Eden Prime could possibly live up to the stories of pristine landscapes that drew them there. What the colonists found exceeded their expectations - the stable climate and compatible biology made the colony almost instantly viable.

Over the next few decades, several million Humans immigrated to Eden Prime and a primarily agrarian culture developed. The new colony quickly became not only self-sufficient, but began exporting goods. Chief among these were rare plants grown from Earth's many heritage seed libraries.

But in 2183, the colonists faced a true test of their character: Eden Prime was attacked by the rogue Spectre Saren Arterius and his Geth allies. Not long after, the Citadel was attacked by those same forces and Eden Prime's neighboring world Terra Nova found itself threatened with complete destruction. Faced with such violence, a lesser citizenry might have retreated back to the safety of Earth, as so many colonists of Terra Nova did. But Eden Prime's governing body refused to give in. Not only did the colonists vote overwhelmingly to block a measure calling for the building of evacuation ships, they voted to ease restrictions on emigrants from Terra Nova looking for a new home. As a result, Eden Prime's population has swelled; whatever the war might bring, its status as a symbol of Humanity's future in the stars remains unblemished.

Feros

Feros is a habitable world in the Attican Beta cluster. Two-thirds of the habitable surface is covered with the ruins of crumbling Prothean megalopolis. In the millennia since the Prothean extinction, the ruins have

been picked over by looters many times.

Feros was considered a poor prospect for colonization, as little open ground remains for agriculture. The only sizable fresh water sources are the poles, which are tapped by the decaying Prothean aqueduct system. The dead cities, while in good condition considering their antiquity, are of uncertain stability. Ground level is congested by a dozen meters of fallen debris, and the air is fouled by dust.

In 2178, the Human ExoGeni Corporation announced its intention to place a permanent colony on Feros, to thoroughly explore the ruins. The pioneer settlement was placed on the upper levels of the several intact skyscrapers, using the surviving Prothean aqueducts and rooftop hydroponics gardens to support the population.

Freedom’s Progress

Freedom’s Progress was once a typical Alliance settlement, but following complete communications blackout and its apparent destruction is now a lightning rod for anxiety and dread in the galactic Human community.

The communications blackout followed an upgrade of the colony’s small military force (supplemented by mechs and security drones) with high-powered, tower-mounted GARDIAN lasers. Colonists complained about construction cost overruns, delays, noise, and damage to the local environment. They also feared the defense army could be seen as provocative to their world’s neighbors. Such fears may not have been baseless. Authorities have still offered no explanation for the communications blackout, fueling rumors of plagues, natural disasters, or a cult-inspired mass suicide.

Located in strategically insignificant space, Freedom’s Progress had once offered residents spectacular rainbows, lush marshlands, and stunning mountain ranges. Its potential as an agricultural settlement and tourism wonderland rivaled that of any Alliance colony.

Gellix

Gellix, the second planet in the Arrae system, is a marginally habitable world of mountains and ice.

The planet was turned into a Human penal colony upon its discovery in 2161, but its prisons shut in 2179 after racking up the worst safety records in the Systems Alliance. Lawsuits are still in the courts.

Shortly after the closure of the prisons, a handful of intergalactic corporations moved in to set up mines, supply depots, and other facilities on the planet.

Haestrom

Before the Geth revolt 300 years ago, the Quarians colonized Haestrom to study the mysterious instability of its sun, which threatened premature eruption into a red giant. As a scientific outpost of minimal military value, Haestrom was ill-equipped to repel Geth forces during the insurrection and fell quickly under their control.

Captured Geth planetary survey data indicates that despite sustaining damage, Haestrom's architecture remains as it was before the war, preserving a Quarian architectural style that no longer exists anywhere else in the galaxy.

Because Haestrom's sun has overwhelmed the planet's protective magnetosphere, Humans foolhardy enough to venture into Geth-controlled Haestrom must exercise extreme caution.

Minutes of radiation exposure will overload shields and hours of exposure will kill. Furthermore, solar output renders surface-to-orbit communication nearly impossible.

Horizon

A typical Terminus colony possessing minimal tourist value, Horizon promises substantial economic opportunity especially in providing new products for Humans and supplying the Turian Hierarchy. Surveyed 18 years ago, Horizon received pilot habitation four years later; the colony proper is now eight years old.

Blessed with verdant forests and abundant fresh water, Horizon maintains a colonial culture that thrives as a refuge from the increasing restrictions of Citadel-governed society. Horizon has attracted numerous dissidents, marginal people, and fringe-dwellers from across Alliance space.

Ilos

Like the ancient Human city of Troy, Ilos is a world known only through second-hand sources.

References to Ilos have been found at several other Prothean ruins, though direct study of the world is unlikely to occur.

Ilos lies in a remote area of the Terminus Systems only accessible by the legendary Mu Relay.

Four thousand years ago, the Mu Relay was knocked out of position by a supernova and lost.

Since then, Ilos and its cluster have been inaccessible.

Occasionally, a university will organize an expedition to chart a route to Ilos using conventional FTL drive. These never get beyond the planning stages due to the distance and danger. The journey could take years or decades, passing through the hostile Terminus Systems and dozens of unexplored systems.

Korlus

Known as the starcraft cemetery, Korlus was the regional toxic junk yard for centuries. Ships reaching astronautical “near-death” at connecting mass relays were sent to Korlus, stripped of every useful component, then dumped planetward to clear shipping lanes.

Currently Korlus hosts numerous merc factions such as the Blue Suns, rumored to be using downed ship fossils to test advanced munitions. Massive gun batteries threaten anyone attempting planetfall, with minimal defenses against ground attack.

Because ancient vulcanism greenhoused the planet, Korlus was too hot and CO2-rich to develop a biosphere, despite the abundant lakes that could have sponsored the development of life.

Now cool enough for protected habitation, but too scorching for anyone but extremophiles and mercenaries seeking secrecy, Korlus supports numerous Krogan outposts. The Krogan have therefore seeded Korlus with hardy varren, often kept as war hounds. Varren live primarily on a diet of geophagous vermin and each other.

Lesuss

An unremarkable world located far from regularly traveled trade routes, Lesuss is inhabited only by a small Asari colony. The main feature is a monastery that houses a large population of Asari with active or latent Ardat-Yakshi genes, a disorder that causes the death of anyone who mates with the afflicted Asari. Although some of the colonists exiled themselves voluntarily, many were sent to Lesuss by their families to protect society from their deadly potential.

The monastery emphasizes individual sacrifice for the good of the community. Latent Ardat-Yakshi, as well as active sufferers who show that

they can control their condition, may be offered a chance to reintegrate into Asari society after spending sufficient time on Lesuss. Active Ardat-Yakshi whose psychological profiles show capacity for neither empathy nor reeducation are confined to the monastery for life.

Noveria

Noveria is a cool, rocky world, with most of its hydrosphere locked up in massive glaciers. A privately chartered colony world, the planet is owned by the Noveria Development Corporation holding company. The NDC is funded by investment capital from two dozen high technology development firms, and administrated by an Executive Board representing their interests.

The investors built remote hot labs in isolated locations across Noveria's surface. These facilities are used for research too dangerous or controversial to be performed elsewhere, as Noveria is technically not part of Citadel space and therefore exempt from Council law.

By special arrangement, Citadel Special Tactics and Reconnaissance agents have been granted extraterritorial privileges, but it remains to be seen how committed the Executive Board is to that principle. Given its unique situation, it is understandable that Noveria is often implicated in all manner of wild conspiracy theories.

Ontarom

Sixteen years ago, the Systems Alliance established the first dish field on Ontarom, defying the tidal disruptions and electrical storms that periodically sweep across the planet. The facility has since grown into a crucial communications hub for the Alliance.

Trade between the Alliance base and nearby Human settlements sustains planetary unity. The Alliance also trains and hires colonists to maintain the

quantum communicators, further strengthening the bond between locals and the military forces that use the comm stations.

Although most of the communication relays serve the military, a coalition of Ontarom's businesses has begun construction on a civilian broadcast hub. The local Alliance commander has offered the help of the military's technical experts, making Ontarom a symbol of civilian and military cooperation.

Palaven

When the Turians were introduced to the galactic community, an Asari diplomat poetically described their homeworld, Palaven, as "a silver world of fortresses and fire." Because Palaven's weak magnetic field is a poor shield from its sun, most of the planet's animal life developed metallic carapaces as defenses against solar radiation. Its photosynthetic life is similarly impressive, shutting down vulnerable metabolic processes during daylight hours and repairing cellular damage at night.

The visible fortifications of Turian cities reflect their martial society, but since joining the galactic community, internal conflicts have become honor-bound affairs with few casualties among noncombatants. These city fortifications have proven no match for the Reapers and their aggressive bombardment of Palaven.

Menae

Menae is one of two moons orbiting the Turian homeworld of Palaven. The Turian Hierarchy put Menae in the hands of the military soon after their spacecraft first landed on the moon, immediately halting civilian research and exploration. Menae's geological composition and specifications have been classified ever since. These days, a few active naval bases dot the moonscape, as well as infantry installations focused on extreme survival training.

The mystery of Menae is a lasting fascination for many Turian citizens. Speculation about its presumably rare and valuable resources has become a common plot point in vids, novels, and even poetry for young Turians.

Pragia

Choked by the hyper growth of non-native plant species, Pragia serves as a galactic reminder about the imperative for careful regulation during colonization.

Two centuries ago, Batarian agribusiness chose uninhabited Pragia as their empire's breadbasket.

Colonization authorities introduced non-native, industrially-mutated plants that flourished in the world's fertile volcanic soil. Synergizing with Pragia's natural geothermal conditions and chemotropic microbes the imported species soon became a nightmare. Mutant strains of poisonous and even carnivorous plants arose, overgrowing colonies in days instead of years and causing the Batarians to abandon their holdings. Because the planet's small animal population is insufficient to check its plant growth, Alliance ecologists predict soil exhaustion in 400 years.

Due to its relative isolation and lack of population, Pragia has become a regional haven for drug-runners, weapons-smugglers, pirates, mercenaries, terrorists, and intelligence agents seeking secrecy.

Rakhana

The Drell homeworld of Rakhana once teemed with life, its arid plains home to spectacular insect and reptile analogues. But the Drell took to industrialization early and did not realize the extent of the environmental damage they caused until it was too late. With their topsoil depleted and oceans too acidic to sustain life, the Drell were situated for a massive

population crash by 2025 CE.

It was then the Hanar stepped in mounting a large-scale rescue operation to bring Drell to the Hanar homeworld of Kahje. As wars erupted over what resources remained on Rakhana and billions began to die, approximately 375,000 Drell escaped in the exodus. To repay their debt, the Drell entered into an agreement with the Hanar. Called the Compact, it states that the Drell would assist the Hanar with tasks the Hanar cannot physically perform. Today, high-ranking Hanar are often inseparable from their Drell attendants.

Rannoch

The planet Rannoch, an arid planet orbiting an older star in the Tikkun system, is the former Quarian homeworld. Almost three hundred years ago, the Quarians were driven from Rannoch by the Geth, synthetic servants who gained sapience and rebelled against their creators. Although Rannoch is now largely uninhabited, the Geth have acted as caretakers, working to repair the planet's ecology, restore ancient structures, and cultivate some farmland.

Rannoch has no insect life. As a result, its pollinating plants evolved to rely on animals for propagation. This symbiosis between flora and fauna is responsible for the Quarians' weakened immune systems, which made colonization of other planets extremely difficult after their exile from Rannoch. For many Quarians, reclaiming their homeworld from the Geth is a matter of both cultural and physiological necessity.

Sanctum

Sanctum is known for the freezing ice storms which sweep across its poles and temperate zones, with only a thin strip of habitable land along the equator. Because of those harsh living conditions, Sanctum attracts only the most gruff and hardy, from miners to mercenaries to company men. Mining, referred to as "ice cracking" anywhere but the equator, is the backbone of

Sanctum’s economy. The planet is rich in platinum and palladium deposits, as well as boron, which is locally used in semiconductor doping.

Sanctum’s corporate factions have learned that Cerberus is involved in the planet’s finances.

Systems Alliance intelligence agents embedded within the corporate strata are quietly urging the companies to confront Cerberus directly, but so far, financial bickering has kept Sanctum’s major stakeholders from acting against the lllusive Man.

Sur’Kesh

Alternating between large oceans and landmasses covered in flora, the Salarian homeworld, Sur’Kesh, is known for its humid climate and lush vegetation. As with the rainforests that once covered Earth, the planet’s many forests enjoy a rich biodiversity. The Salarian desire for intellectual stimulation drove them long ago to explore every aspect of their environment, developing ways to thrive without consequences detrimental to their habitat.

The areas near major cities and industrial centers are meticulously maintained, with an eye towards ensuring that sunlight penetrates to the ground level and that established paths through the jungle are kept clear for travel. Burngrass, a soil-enriching and adaptable weed native to Sur’Kesh, has become a major export because of its value for terraforming.

Thessia

The Asari homeworld, Thessia, is the core of the largest economy in the Milky Way. The planet’s reserves of element zero are so vast that they affect its price galaxy-wide. Because life on Thessia evolved in an eezo-rich environment, the world is home to a wealth of both biotically active and

eezo-resistant species. Travel to the planet is strictly controlled, but smuggling remains an issue.

Thessia is host to varying republics instead of a single government and, although each maintains a formidable military, it is notable for having long been free of internal or external wars. The Asari are renowned for their cultural and political dominance, and they excel in ambassadorial ventures. They have a strong presence in Citadel politics and galactic policy. However, it is the unfocused political structure of their homeworld that has left the Thessians unprepared for the current conflict.

Tuchanka

Tuchanka, the Krogan homeworld, boasts extreme temperatures, virulent diseases, and predatory fauna. Around 1900 BCE, the Krogan discovered atomic weapons and promptly sent their planet into a nuclear winter. The majority of the population retreated to underground bunkers, and Krogan culture slipped into a dark age dominated by tribal clans.

In 80 CE, decades into the Rachni Wars, the Salarian Union made first contact with the primitive Krogan and initiated a “cultural uplift” to shape them into a modern army capable of confronting the Rachni. During this uplift, the Salarians constructed the Shroud facility on Tuchanka to shield the planet from harmful forms of solar radiation. Later, during the Krogan Rebellions, reproductive rates were curtailed by the genophage, ensuring the Krogan remained a species in decline - and Tuchanka a desolate wasteland.

Uncharted Worlds

There are between two and four hundred billion stars in the galaxy, and less than 1% of them have ever been visited or had their systems properly surveyed.

Humanity’s early expansion into the Attican Traverse was haphazard; a desperate race to claim habitable planets where populations can be economically settled. Ignored in the wake of this land grab were thousands of less hospitable worlds, each potentially rich with industrial resources.

The wealth of entire solar systems remain untapped, waiting for corporate survey teams or independent pioneers to discover and exploit them.

This, however, is not an easy task. In addition to the environmental hazards, the fact that uncharted worlds are largely ignored makes them popular bases for criminals, revolutionaries, cults, and others who wish to remain unnoticed by galactic society.

Virmire

Virmire is a lush world located on the frontier of the Attican Traverse. Its vast seas and orbital position on the inner life zone have created a wide equatorial band of humid, tropical terrain.

Only the political instability of the region has impeded efforts at colonization.

Many times, the Citadel has opened negotiations to settle Virmire with the various criminal gangs and petty dictatorships in the nearby Terminus Systems. All fell apart due to internal power shifts within the opposing parties. The Citadel has written off the colonization of Virmire as impossible without significant political change.

The Terminus powers themselves are unlikely to ever settle Virmire. Most lack the resources to support settlement of a virgin world, finding it more expedient to steal from their neighbors than build for themselves.

Zorya

“Bring firearms and antihistamines” is what veteran guides say about this lush garden world.

First colonized in 2160, Zorya’s temperate and tropical zones are overrun with plants and fungi of all kinds. As a result, the air in most habitable areas is choked with pollen and spores that range from benign to deadly. The scattered colonies across the planet have resorted to clear-cutting and slash-and-burn farming to create habitable zones, and the more rural areas, where the spores are thickest are populated only by vorcha. Lax ecological laws allow mining and manufacturing industries to flourish and pollute cheaply, as the planet’s carrying capacity far outstrips the current size of its colonies.

Zorya is also home to the Blue Suns mercenary company who dominate the colonies’ security forces. The Suns enjoy nearly unlimited influence with local politicians and judges, ensuring no other private military contractors can compete with them economically. Nearly every colony has a Suns recruiting station, if not a training camp, though this has hardly made the planet any safer.

Piracy, drugs and vice, and political violence are commonplace.

Praetorians

Hovering tanks resembling cross between an octopus and a giant crab, praetorians are well-armored killing machines of mysterious origin.

Praetorians employ redundant systems from the multiple Humans encased within them. Armed with eye-mounted particle beams, they are capable of unleashing devastating close-range energy attacks that also regenerate their shields. Within hours after death, the organic components of praetorian corpses disintegrate into a denatured pus, while their mechanisms turn to ash. One specimen, autopsied within minutes of death, reveals a clue: nanomachines may disintegrate the praetorian’s organic and mechanical components before self-destructing.

If correct, this self-rendering hypothesis could account for three documented cases of dead praetorians apparently releasing (or becoming) clouds of neurotoxic gases, causing suffocating paralysis and nearly-instant death. In one remote facility, 17 soldiers died from gas inhalation while assessing the praetorian. Any personnel in the vicinity of dead praetorians are urged to protect themselves with breathing apparatus.

Protheans

Fifty thousand years ago, the Protheans were the only spacefaring species in the galaxy. They vanished in a swift “galactic extinction”. Only the legacy of their empire remains. They are believed to have built the mass relays and the Citadel, which have allowed numerous species to explore and expand throughout the galaxy.

Prothean ruins are found on worlds across the galaxy. While surprisingly intact for their age, functioning examples of Prothean paleotechnology are rare. Time and generations of looters have picked their dead cities and derelict stations clean.

Some believe the Protheans meddled in the evolution of younger races. The Hanar homeworld of Kahje, for example, shows clear evidence of Prothean occupation. The presence of a former

Prothean observation post on Mars has caused a rebirth of “interventionary evolutionists” among Humans. These individuals believe the god-myths of ancient civilizations are misremembered encounters with aliens.

Beacon

The beacon was a Prothean artifact unearthed on the Alliance colony of Eden Prime. Its resemblance to the Prothean data banks recovered on Mars provoked immediate interest from the Alliance and the Citadel Council. It proved to be a solid state data storage device, part of a galaxy spanning comm network similar to the modern extranet. Intact Prothean “paleotechnology” is rare, the beacon seemed to promise another quantum leap of technology, akin to the discovery of the mass effect drive and relays.

Unfortunately, the beacon also drew the attention of the rogue Spectre Saren Arterius and his synthetic allies, the Geth. A dawn raid by his flagship Sovereign resulted in hundreds of civilian casualties. The beacon was badly

damaged. The motives behind the attack are still being investigated.

During the recovery operation, the beacon fired a pulse of energy at the Executive Officer of the Alliance frigate Normandy. Lieutenant Commander Shepard survived and appears to have suffered no ill effects. Afterwards, the beacon fell inert. The mechanism appears to be dead.

Cipher

The Prothean beacon downloaded its knowledge into Lt. Commander Shepard on Eden Prime, causing confusing dreams and visions. While the imagery is becoming clearer with time, the meaning of the beacon communication remains elusive.

It has been suggested the Prothean data recording is highly dependent on a certain point of view, what Carl Jung described as the collective unconscious. The “cipher” needed to comprehend the images implanted in Shepard’s mind is the cultural knowledge of a Prothean: the archetypes, biological instincts, and common experiences universal to the race. Since the Protheans have been dead for millennia it may be impossible to acquire this “cipher”.

Data Discs

Despite all the evidence confirming the existence of the Protheans, little is known about their culture and society. From time to time, dig sites will yield new clues, but after 50,000 years of decay, little of value is unearthed.

Recent research has focused on the discovery of Prothean data discs. On their own, they are frail and rarely found in one piece. Occasionally, however, an intact disc will be discovered within a console or reading device.

To date, over three dozen discs have been recovered and a few of those have been restored to the point where researchers can begin analyzing them.

Though it may be some time before scientists discover a way to transfer the data off the discs, they are currently considered the most tangible leads for learning more about the Prothean culture.

Martian Ruins

After twenty years of manned research outposts and nearly a century of robotic exploration, the European Space Agency's Lowell City became the first permanent settlement on Mars in 2103. Within a decade, the United States and China had founded permanent settlements, as well.

The south polar region of Promethei Planum developed a "Bermuda Triangle" reputation. Satellites detected intermittent mass concentration and magnetic field shifts. In 2148, prospectors working near Deseado Crater discovered an underground complex: a Prothean observation post.

The odd phenomena were generated by the operation and discharge of a mass effect core, struggling to function despite fifty millennia of neglect.

Earth was electrified with the news. Humanity was unequivocally not alone. While courts battled who owned the ruins, the international scientific community coordinated a massive effort to access, translate, and interpret the databanks recovered from the facility.

The facility proved to be a biosciences observation post built when *Homo sapiens* were first evolving on Earth. While the motives of the Protheans are not certain, translated records indicate that the facility was in regular communication with automated observation platforms in Earth orbit and the lunar nearside. The half-dozen mass effect spaceships found in the facility were presumably used for first-hand observation.

Purgatory

Originally an “ark ship” designed to carry agricultural animals, the Purgatory was taken by the Blue Suns mercenary company during a large-scale battle in the Skyllian Verge. In a years-long reconstruction of its interior, the Blue Suns repurposed it to hold sapient prisoners, supposedly because they captured so many in their conflicts throughout the galaxy. When media outlets started investigating claims that the ship was used for slaving operations, the Blue Suns turned a public relations nightmare into a regular income source.

Claiming to be in full accordance with Citadel law. the crew of Purgatory now regularly lands on planets or space stations claiming that they can no longer hold their prisoners because of cost overruns. To avoid keeping prisoners under inHumane conditions, they will have to release them at the nearest port, dumping the scum of the galaxy directly into the local population. Faced with such a scenario, the government usually grants Purgatory’s crew massive discounts in fuel, food, and repairs as long as they go away. Some even offload their own prisoners to Purgatory for a fee, grateful to have a problem relocated somewhere other than their backyard. Such unfortunates go in the dark depths of the ship, never to be seen again by their families or contacts.

Purgatory is minimally armed with GARDIAN defenses. Though a cruiser-weight ship, it relies on the Blue Suns’ fighters to prevent any attacks bent on a jailbreak or similar events.

Quarians

Driven from their home system by the Geth nearly three centuries ago, most Quarians now live aboard the Migrant Fleet, a flotilla of fifty thousand vessels ranging in size from passenger shuttles to mobile space stations.

Home to 17 million Quarians, the flotilla understandably has scarce resources. Because of this, each Quarian must go on a rite of passage known as the Pilgrimage when they come of age. They leave the fleet and only return once they have found something of value they can bring back to their people.

Other species tend to look down on the Quarians for creating the Geth and for the negative impact their fleet has when it enters a system. This has led to many myths and rumors about the Quarians, including the belief that underneath their clothes and breathing masks, they are actually cybernetic creatures: a combination of organic and synthetic parts.

Economy

The Migrant Fleet has little economic base, operating in a state of perpetual “hand-to-mouth”. While Quarian ships include light manufacturing and assembly plants, they lack heavy industries such as refining and shipbuilding. The fleet has tankers for water purification and oxygen cracking, but with the space-intensive nature of agriculture limits food production. A single disaster could destroy the fragile balance.

The Quarians earn income in creative ways. Because the government is obliged to provide food, water, air, and medical support for every individual, the Conclave strategically determines the course of the Fleet to bring in resources and income. A species who suspects the Migrant Fleet is heading towards their space often offers a “gift” of surplus starships, fuel, and resources to alter course.

As the fleet passes through the a system, swarms of mining vessels work over asteroids for metals and siliceous materials and cometary bodies for water ice and organics. Quarian miners are adept at locating and strip-mining space-borne resources. This sparks conflict with corporations already working the system. Large mining concerns spend millions on lobbyists and public relations portraying the Quarians as locusts, devouring the resources of a system before moving on.

The greatest asset of the Quarians is their rarefied skills. Most are experienced miners. Due to their life of perpetual salvage and repair, they are skilled engineers and technicians. More than once, the very corporations that lobby against the Quarians have made back room deals with the Fleet, arranging for skilled Quarians to fill space engineering jobs that other species would demand higher wages for. Quarians are widely hated among the working classes. “The Quarians are coming to take our jobs” is a common response to the Fleet’s approach.

Government

Due to the Quarians’ precarious existence and the need to enforce strict rationing, government is somewhat autocratic. The Migrant Fleet’s operations are directed by the Admiralty, a board of five military officers who are advised by a legislative body called the Conclave.

Each vessel in the Fleet has the right to send representatives to the Conclave aboard the flagship. The number of representatives is based on crew size. Larger clans, with bigger ships and more votes, form the cores of political blocs. Opposition comes from the Outriders’ Coalition, with delegates from thousands of smaller ships.

The Admiralty defers to the Conclave’s decisions in most circumstances. However, if all five members agree a Conclave decision jeopardized the survival of the fleet, and cannot get the Conclave to address their concerns, they have the right to summarily overturn the legislative decision. After the Admiralty uses this extraordinary power, they must resign. If the Admiralty

does not step down after using their veto the rest of the military is obliged to arrest them.

Each ship captain has authority over the vessel, but is advised by an elected civilian Council, just as the Admiralty is advised by the Conclave. This relationship may range from cooperation to polite tolerance to outright hostility, but any captain who overrules his council without good reason is relieved of command by the Admiralty.

Many Quarian ships are owned by clans who pool their resources to purchase used vessels from private sellers. Large ships are prestigious for big, rich clans, but a small ship means status for a small clan with enough personal wealth to afford a private vessel. Clan vessel captains are not subject to dismissal by the Admiralty; abusive captains are a “family” problem if they do not disrupt the operations of the fleet.

Law and Defense

Although the Conclave establishes civil law much as any planet-based democracy, enforcement and trials are more unique. After the flight from the Geth, there were few constables to police the millions of civilians aboard the Fleet, so the navy parceled out marine squads to maintain order and enforce the law. Today, Quarian marines have evolved training and tactics akin to civilian police, but remain adept at combat in the confined spaces of a starship, and fully under the command of the military.

Once taken into custody, the accused is brought before the ship’s captain for judgment. While the ship’s council may make recommendations, tradition holds that the captain has absolute authority in matters of discipline.

Most are lenient, assigning additional or more odious maintenance tasks aboard the ship. Persistent recidivists are “accidentally” left on the next habitable world. This practice of abandoning criminals on other people’s planets is a point of friction between the Quarians and the systems they pass through. Captains rarely have another choice; with space and resources at a

premium, supporting a non-productive prison population is not an option.

In the early years, many Quarians freighters were armed and used as irregular “privateers”. Civilian ships still show a strong preference for armament, making them unpopular targets for pirates. Though they have rebuilt their military, there are still mere hundreds of warships to protect the tens of thousands of ships. The Quarian navy follows strict routines of patrol, and takes no chances. If the intent of an approaching ship can’t be ascertained, they shoot to kill.

Migrant Fleet

The Migrant Fleet is the largest concentration of starfaring vessels in the galaxy, sprawling across millions of kilometers. It can take days for the entire fleet to pass through a mass relay.

When the Quarians fled their homeworld, the Fleet was a motley aggregation of freighters, shuttles, industrial vessels, and the odd warship. After three centuries, all have been modified to support larger crews as comfortably as possible. As the Quarians achieved stability, they began weeding out the ships least suitable for long-term habitation, selling them and pooling the money to buy larger and more spaceworthy hulls. This process is ongoing, as vessels wear out and break down.

While some ships enjoy dedicated cabins with full privacy and sanitary facilities, many more are former freighters, whose cargo bays and containers are pressurized and divided into family spaces using simple metal cubicle bulkheads. The Quarians enliven these austere spaces with colorful quilts and tapestries, which also help muffle sound.

The day-to-day operation of the fleet - traffic control, station-keeping, supply distribution, and so on - are under military jurisdiction. Though ship captains have the authority to deviate from their assigned positions and may leave the fleet at any time, they are assumed to do so at their own risk. As the Migrant Fleet moves around the galaxy, many ships split off to pursue individual

goals, returning days or years later.

Pilgrimage

When Quarians of the Migrant Fleet reach young adulthood, they must leave their birth ship and find a new crew to accept them as permanent residents. To prove themselves, they must recover something of value. This is offered to their prospective captain as proof that they will not be a mere burden on the shoestring resources of the ship.

This process is called the Pilgrimage. Stripped of ritual, the Pilgrimage is merely an attempt to maintain genetic diversity within the small, relatively isolated population bases that make up the Migrant Fleet. If the young stayed and married within their birth vessel, the risk of inbreeding would increase sharply.

Quarians are surgically fitted with their various immunity-boosted implants in preparation for leaving on Pilgrimage. Having grown within the sterile, controlled environments of the Migrant Fleet ships, Quarians have virtually no natural immune system.

Religion

The ancient Quarians practiced ancestor worship. Even after abandoning faith for secularism, Quarians continued to revere the wisdom of elders. As time passed and technology advanced, they inevitably turned their knowledge to preserving the personalities and memories of the elderly as computer virtual intelligences. These recordings became a repository of knowledge and wisdom, stored in a central databank and available through any extranet connection.

They held no illusions that this was like a form of immortality; like all virtual intelligences, their electronically-preserved ancestors were not truly sapient.

This was considered a surmountable problem; sapience could surely be reduced to simple mathematics.

The Quarians began exhaustive research into creating artificial intelligence so they could learn to escape the bounds of mortality and give their ancestral records true awareness. Unfortunately, the life the Quarians created did not accept the same truths they did. The Geth destroyed the ancestor databanks when they took over.

In the centuries since they evacuated their homeworld, most Quarians have returned to religion in various forms. Many believe the rise of the Geth and the destruction of their ‘ancestors’ were chastisement for arrogantly forsaking the old ways and venerating self-made idols.

Others have a more philosophical outlook, believing their race was indeed arrogant, but no supernatural agency lay behind the Geth revolt. Rather, the Quarians’ actions wrought their own doom. Either way, every Quarian would agree that their own hubris cost them their homeworld.

The Battle of Rannoch

Quarians and Geth Survive

The Quarians' plan to take back their homeworld was risky, and could easily have led to their annihilation if a peaceful solution had not been found.

In an initial battle against the Reaper-upgraded Geth ships, the Quarians found their Heavy Fleet and a portion of the Patrol Fleet outmatched. To stave off defeat, the Quarians retreated at FTL

speeds to rally with the Civilian fleet on the far side of Rannoch's sun, Tikkun. Temporarily hidden, but with only minutes of advance warning should a Geth scout spot them, the Quarians

planned counterattacks to disrupt the Geth link with the Reapers. First preying on a damaged Geth dreadnought, the Quarians followed by sending strike teams to Rannoch's surface to destroy the Reaper that was transmitting improved software to Geth forces.

When the Reaper uplink was disrupted, the Geth suffered momentary downgrades in response time and intelligence, allowing the Quarians to press their advantage. But emergency orders from Commander Shepard and Admiral Shala'Raan vas Tonbay broke off hostilities before the Geth's full capabilities were restored. It is to the Quarians' credit that all three fleets obeyed the order to cease fire, even the Civilian Fleet, which had little combat experience. The Geth, for their part, bore no ill will towards enemy combatants and broke off hostilities with perfect discipline.

It remains to be seen how the Geth and the Quarians will manage to coexist on Rannoch. For now, they have committed their considerable military forces to repel the Reapers. Given the long-lasting animosity between the Geth and Quarians, it is possible that the Reapers did not plan for the possibility of such an alliance and will be unprepared to contend with both armadas.

Geth Destroyed

The Quarians' plan to take back their homeworld was risky, but led ultimately to the destruction of the Geth.

In an initial battle against the Reaper-upgraded Geth ships, the Quarians found their Heavy Fleet and a portion of the Patrol Fleet outmatched. To stave off defeat, the Quarians retreated at FTL

speeds to rally with the Civilian fleet on the far side of Rannoch's sun, Tikkun. Temporarily hidden, but with only minutes of advance warning should a Geth scout spot them, the Quarians planned counterattacks to disrupt the Geth link with the Reapers. First preying on a damaged Geth dreadnought, the Quarians followed by sending strike teams to Rannoch's surface to destroy the Reaper that was transmitting improved software to Geth forces.

After the Quarians eliminated the Reaper, the Geth's processing power dropped precipitously and their bandwidth became clogged with queries for new instructions. Quarian fighters reported the exact positions of Geth ships so that the liveships could fire safely on the Geth from the far side of Tikkun, using the star's gravity as a slingshot. The Geth command-and-control network was now in tatters, their forces separated by vast distances. The Quarians hunted them like animals. It was not a one-sided victory—despite vast losses, the Geth staged a tireless defense—but it was final.

Quarians Destroyed

The Quarians' plan to take back their homeworld met with early success, but ultimately led to the near annihilation of their people.

In an initial battle against the Reaper-upgraded Geth ships, the Quarians found their Heavy Fleet and a portion of the Patrol Fleet outmatched. To

stave off defeat, the Quarians retreated at FTL

speeds to rally with the Civilian fleet on the far side of Rannoch's sun, Tikkun. Temporarily hidden, but with only minutes of advance warning should a Geth scout spot them, the Quarians planned counterattacks to disrupt the Geth link with the Reapers. First preying on a damaged Geth

dreadnought, the Quarians followed by sending strike teams to Rannoch's surface to destroy the Reaper that was transmitting improved software to Geth forces.

The Quarians re-engaged the Geth fleet, expecting to find their enemy now hobbled. Instead, the Geth responded with unparalleled precision, devastating the fighters that the Quarians used as scout ships. This forced the Quarians to commit other forces earlier than planned. The Geth then attacked the Quarian rear with a second fleet that they had held in reserve, laying waste to the liveships and Civilian Fleet. The Quarians, knowing the liveships would not survive long if they were forced to retreat without protection, threw every ship into the battle. The Geth fought mechanically, downing ship after ship as the Quarians flailed in desperation. Some few Quarian ships did escape—but alone and on the run in Geth space, they are living numbered days.

Rachni

Though now extinct, the Rachni once threatened every species in Citadel space. Over 2,000 years ago, explorers foolishly opened a mass relay to a previously-unknown system and encountered something never seen before or since: a species of spacefaring insects guided by a hive-mind intelligence.

Unfortunately, the Rachni were not peaceful, and the galaxy was plunged into a series of conflicts known as the Rachni Wars. Attempts to negotiate were futile, as it was impossible to make contact with the hive queens that guided the race from beneath the surface of their toxic homeworld.

The emergence of the Krogan ended the Rachni Wars. Bred to survive the harshest environments, the Krogan were able to strike at the queens in their lairs and reclaim conquered Council worlds.

But when Krogan fleets pressed them back to their homeworld, the Rachni refused to surrender, and the Krogan eradicated them from the galaxy.

Reapers

A myth common to several cultures in the galaxy, Reapers were imagined to be space monsters who consumed entire stars. Archaeologists and mythologists attempting to uncover sources for such myths have yielded little, except interstellar religious themes of all-consuming devils common to primitive cultures.

Indoctrination

Reaper “indoctrination” is an insidious means of corrupting organic minds, “reprogramming” the brain through physical and psychological conditioning using electromagnetic fields, infrasonic and ultrasonic noise, and other subliminal methods. The Reaper’s resulting control over the limbic system leaves the victim highly susceptible to its suggestions.

Organics undergoing indoctrination may complain of headaches and buzzing or ringing in their ears. As time passes, they have feelings of “being watched” and hallucinations of “ghostly” presences. Ultimately, the Reaper gains the ability to use the victim’s body to amplify its signals, manifesting as “alien” voices in the mind.

Indoctrination can create perfect deep cover agents. A Reaper’s “suggestions” can manipulate victims into betraying friends, trusting enemies, or viewing the Reaper itself with superstitious awe. Should a Reaper subvert a well-placed political or military leader, the resulting chaos can bring down nations.

Long-term physical effects of the manipulation are unsustainable, Higher mental functioning decays, ultimately leaving the victim a gibbering animal. Rapid indoctrination is possible, but causes this decay in days or weeks. Slow, patient indoctrination allows the thrall to last for months or years.

Reaper Capabilities

The Reapers are technologically superior to the organic species of the galaxy—but the degree of that superiority is a matter of debate in the intelligence community.

The Reapers' thrusters and FTL drives appear to propel them at more than twice the speed of Citadel ships. Estimates of their location in dark space suggest they can travel nearly 30 light-years in a 24-hour period.

Reaper power sources seem to violate known physical laws. Reapers usually destroy fuel infrastructure rather than attempting to capture it intact, indicating that Reapers do not require organic species' energy supplies. Consequently, the Reapers attack without regard for maintaining supply lines behind them, except to move husks from one planet to another. Unlike Citadel ships, Reapers do not appear to discharge static buildup from their drive cores, although they sometimes appear wreathed in static discharge when they land on planets.

The main gun on a Reaper capital ship dwarfs that of the Alliance's Everest-class dreadnoughts. No dreadnought has yet survived a direct hit from the weapon. Estimates put its destructive power anywhere from 132 to 454 kilotons of TNT. Even if the target is hardened, as in the case of a surface-based missile silo, the gun can instead bury the target beneath molten metal. Precise targeting computers and correctors also give the Reaper weapons a longer effective range than organics' dreadnoughts or cruisers.

The kinetic barriers on a Reaper capital ship can shrug off the firepower of a small fleet. Weapons specifically designed to overcome shields, such as the Javelin, GARDIAN lasers, or the Thanix series, can bypass the barriers to some degree. The difficulty is getting close enough to use them—the surface-mounted weaponry on Reaper ships, similar in principle to GARDIAN, presents an effective defense against organic species' fighters.

Reaper Variants

The Citadel races have classified the known variants of Reapers into four types:

- **CAPITAL SHIPS** are Sovereign-class Reapers two kilometers in length. They typically target the dreadnoughts, defense installations, and industrial cities of organic civilizations. Experts believe the Reapers harvest a single species of organics during each cycle of extinction to create these massive ships. Some capital ships are capable of launching small drones equivalent to fighters.

- **DESTROYERS** are 160 meters long and, in astounding numbers, make up the bulk of the Reaper fleet. They engage cruisers and other, smaller ships, as well as communications posts and enemy command centers. Research suggests destroyers are created from those species that are not harvested to make capital ships.

- **TROOP TRANSPORTS** carry husks to unconquered planets and bring victims of the harvest to Reaper processing centers. They vary in length from 200 meters to one kilometer, but, unlike capital ships and destroyers, do not appear to be self-aware. Instead, other Reapers operate troop transports remotely.

- **PROCESSORS**, also called “slaughter ships,” are mobile centers for mass DNA harvesting. Like troop transports, processors appear to be remotely operated by sapient Reapers.

Reaper Vulnerabilities

Although clearly technologically superior to the Citadel forces, the Reapers have experienced casualties in the battles across the galaxy. This indicates that, theoretically, with the right intelligence, weapons, and strategy, the Reapers could be defeated.

Unlike the mass effect relays that they created, Reapers do not have quantum shields. Locking itself down at a quantum level would leave a Reaper unaware of its surroundings until the shielding deactivated. Instead, Reapers rely on kinetic barriers.

In the case of a Reaper capital ship, these kinetic barriers can hold off the firepower of two dreadnoughts simultaneously, but three clearly causes strain, and four typically results in destruction. Weapons designed to maximize heat damage, such as the Thanix series, show better results against the Reapers than pure kinetic impacts.

The barriers of a Reaper destroyer are less formidable than those of a capital ship. It is possible for a single cruiser or many fighters to disable or demolish a destroyer if they can get within range before they are themselves destroyed.

The Reapers' energy sources are not infinite. For example, to land on a planet, a Reaper must substantially reduce its mass. This transfer of power to its mass effect generators leaves the Reaper's kinetic barriers at only partial strength.

Sovereign was destroyed while assuming direct control over Saren. The feedback from Saren's death seemed to entirely overload Sovereign's shields. Current Reapers do not seem to suffer from this design flaw.

Reaper capital ships can turn faster than Citadel dreadnoughts, but to do so, they must lower their mass to a level unacceptable in combat situations. Consequently, it is possible for a dreadnought to emerge from FTL travel behind a capital ship, then bring its guns to bear faster than the Reaper can return fire. This is a poor tactic, however, against Reapers flying in proper formation.

Reaper Ground Forces

Banshee

Banshees are the corrupted Asari often found leading a Reaper strike force. The Reapers create them specifically from Asari with active or latent predispositions to becoming Ardat-Yakshi, a rare neurological condition that enhances the Asari's biotic power while causing the immediate death of anyone she mates with.

Lumbering as though in constant pain, the emaciated banshees are surprisingly durable opponents. They are devastating biotics able to hurl lethal balls of energy and create shockwaves as they regenerate. What Alliance military finds most disturbing is the Banshee's ability to spawn her own warp field and seemingly teleport during combat. Although their wails have no apparent physiological effect, the psychological impact is undeniable.

When banshees die, their Ardat-Yakshi genetics twist against them, causing a biotic implosion to ensure they evade capture.

Brute

The brute is a hulking amalgamation of Turian and Krogan victims of the Reapers. Because tissue from dextro-protein species like the Turians is incompatible with levo-protein species like the Krogan, implants regulate the brute's body chemistry to combat organ rejection.

It is the fusion of Turian military skill and Krogan blood rage that makes the brute such a formidable enemy, capable of destroying armored vehicles to get to the soldiers inside. Troops are advised to keep their distance, and, whenever possible, not engage a brute alone.

Cannibal

Cannibals are front-line Reaper units created from corrupted Batarians. The nickname refers to their propensity to devour the bodies of fallen comrades. This triggers a biochemical process through which the cannibals spontaneously heal themselves and grow new chitinous armor. The transformation also appears to give cannibals a greater awareness of their surroundings, leading to more strategic behavior and careful use of battlefield cover.

Harvester

The sight of a Reaper Harvester in flight nearby is one of the first indications that a Reaper invasion is underway. Their massive wingspan allows them to quickly cover the distance between them and their prey.

In the Harvester's mouth are two heavy guns that fire in an alternating pattern. The Harvester's most fearsome quality, however, is that its appearance guarantees that Reaper ground troops are not far behind.

Husks

Husks are the aggressive, mindless foot soldiers of the Reaper armies. They are created by impaling either living or dead Humans on mechanical spikes that rapidly extract water and trace minerals and replace them with cybernetics. These cybernetics reanimate the lifeless flesh and tissue, transforming the bodies into horrifying killing machines.

The Reapers use large groups of husks to overwhelm the enemy. The husks' inability to feel pain, as well as their tendency to attack in groups, makes them particularly deadly adversaries.

Marauder

Marauders are harvested Turians that command and protect other Reaper troops. The lean, armored creatures present a significant threat in and of themselves, but they are especially dangerous when leading a Reaper task force.

Alliance marines have observed marauders fortifying husks and cannibals by enveloping them in a ribbon of energy that forms a scabby shell of armor. For this reason, when Alliance soldiers encounter a marauder alongside husks or cannibals, standing orders are to target the marauder first.

Ravager

Ravagers are former Rachni that the Reapers have transformed into heavy artillery through a process of implantation and genetic modification. As walking organic turrets, they can sustain and inflict considerable damage.

Ravagers bear egg sacs that continuously spawn swarmers. If the sacs are destroyed, either during combat or upon the ravager's death, their entire contents burst forth to charge the enemy and explode on contact. A dead ravager expels a caustic gas and an acidic puddle.

Alliance scientists have theorized that it is easiest for the Reapers to maintain control over units of Rachni genetic extraction because of the species' neurological predisposition for hive-mind consensus.

Scions

Though the exact fate of species captured by the Collectors is unclear, the Humanoid appearance of the scions gives ghastly clues. The scion's frame and skull are similar to those of a Human or Asari, but the bone structure is overlaid with a metallic resin. Posthumous examination of their bodies reveals a skin tone resembling that of Reaper husks, but their transformation

process seems more extensive. Like husks, they are cybernetically modified on a nano-scale so they can operate even in hard vacuum. Hoses rather than veins and muscle tissue join major portions of the body together. One arm is replaced with a construct that fits a large rifle, turning the creature into a Humanoid weapons platform, and a fleshy sack is supported by the creature's back and head.

These sacks contain brain matter and spinal tissue, too much to have come from just one victim.

This indicates scions are an amalgam of several individuals, with one primary victim providing the frame and several "secondaries" providing the flesh for a decentralized semi-mechanical nervous system. This decentralization makes them highly resistant to gunshot wounds; even a headshot is not a certain kill.

The scions' weapons, however, indicate that scions retain some living tissue, or at least sustain some of the same electrochemical reactions as those of a Human biotic. The weapon creates a powerful warp effect, which is consistent with the eezo nodules visible in the scion's expansive nervous system. Given the rarity of Human biotics, it seems likely that these dust-form eezo nodules are deposited during their transformation, rather than requiring a biotic victim in the first place.

The Reaper War

The Cerberus Coup

Councilor Udina's attempted coup will no doubt be analyzed for generations to come, but a clear picture is beginning to merge. Udina had contacted Cerberus to coordinate what was intended to be a bloodless takeover of the Citadel, in which he would force the other councilors to grant him emergency powers so that he could command the Citadel Fleet. He would then direct the fleet to liberate his homeworld, Earth.

The plan fell apart early when Executor Pallin and the Salarian councilor caught wind of it. In defense of the plan, the Illusive Man dispatched his top assassins, commanded by Kai Leng, to kill them. Udina had little choice but to support the assassins with an armed force sufficient to hold the Citadel. Captured confidantes have indicated that Udina and Leng's alliance was relatively fragile: Udina may have planned to turn on Cerberus once the fleet was his to command, and Leng departed when he calculated that Udina would not succeed.

Persistent rumors suggest that Udina might have been a high-functioning victim of Reaper indoctrination. His actions played right into the Reapers' plans: even if the coup failed, it would damage Citadel governance. If it succeeded, his plan to retake Earth would likely have turned into a military blunder that Council forces could ill afford. However, there is no direct evidence of his indoctrination, nor obvious opportunity. It is more likely that Udina acted out of desperation, and in doing so, cost Humanity its councilor.

Desperate Measures

Faced with utter annihilation, military planners have considered extreme solutions in their quest to stop the Reapers. The two most plausible are the destruction of mass relays and the use of starships as suicide weapons.

Destroying a mass relay to stop the Reapers' advance is infeasible. Although

it has recently been proven that mass relays can be destroyed, a ruptured relay liberates enough energy to ruin any terrestrial world in the relay's solar system. It would take too long to evacuate the millions or billions of people living near each relay, and the Council is unwilling to sacrifice that many lives when combat stands a chance of saving them. Even if a garden world were to survive the relay's destruction, the Reapers have infinite patience. They traveled out of dark space using conventional FTL—travel within the galaxy is not an insurmountable barrier.

Meanwhile, starships are too costly to be used as projectiles, given that it would take many collisions to seriously harm a Reaper. Some armchair admirals suggest that a single starship traveling faster than light could obliterate a Reaper capital ship, but all ships based on mass effect technology possess hardwired safety features to prevent FTL collisions. If a ship's FTL plotter finds a significant object in the path of a planned jump, the FTL drive refuses to fire in the first place. This is not a perfect safety feature—the sensors can only scan for objects within a reasonable distance at light speed, and a navigator must plot the rest of the course—but it is so inherent to the FTL warm-up process that removing it is nigh impossible. Cynical intelligence analysts note that the secret of mass effect technology, including that safety system, has always been attributed to the Protheans—just as the mass relays were.

The Fall of Earth

The Reapers took Earth in a matter of hours. The Alliance knew the first wave would arrive from Batarian space, but they were unprepared for the speed and scale of the attack.

The Reapers bypassed the Sixth and Seventh Fleets at Terra Nova and Eden Prime, flying straight from relay to relay where they could neither be tracked nor intercepted. The tactic was unexpected, since the navies of organic species would never risk coming out of FTL within combat range or leaving enemies at their backs to threaten supply lines.

At Arcturus Station, more than a dozen Reaper capital ships engaged the Alliance's Second, Third, and Fifth Fleets. This was mere screening for the

main force. Dozens more capital ships continued through the Charon Relay, where the First Fleet had been lying in wait but was soon destroyed. The Fourth Fleet, near Earth, had a few minutes of advance warning. It stood no better chance.

After destroying Earth's comm buoys, smaller Reaper destroyers wiped out all GPS and communications satellites in Earth's orbit and cut the undersea fiber-optic cables that linked the continents. Earth's resistance now relies on outdated radio towers and a few quantum entanglement communicators whose matched pairs happen to be on other continents or outside the Sol system. Communication is so limited that the fate of entire nations remains unknown.

The capital ships bombarded defense installations and industrial centers, annihilating entire cities with populations in the low millions, including Adelaide, Hamburg, Al Jubail, and Fort Worth.

Meanwhile, Reaper destroyers descended into the atmosphere to melt roads and capture population centers with minimal loss of life. This is not an example of the Reapers being merciful. More likely, they are herding their prey to make the coming harvest that much easier.

The Fall of Khar'shan

For every thousand Batarian refugees, there are a thousand and one stories about how the Reapers invaded the Batarian systems. A few elements are common to almost every version, however.

The Reapers arrived first in the Vular system and immediately destroyed its communications network. The Hegemony's Department of Information Control blamed the loss of signal on space weather, but scrambled ships to the system nonetheless. Within a day, Reaper capital ships appeared in the Harsa system and descended on the Batarian homeworld, Khar'shan.

For all the rhetoric about the Hegemony's military prowess, their response to the Reapers was uncoordinated. Moments after the information minister took to the extranet and announced that unknown ships were destroying all traffic

near Khar'shan, the defense minister declared there was no reason to panic. The planet's comm buoys were destroyed next, creating an ominous silence that has persisted ever since.

Fearing they were next, Batarian colonies across Hegemony space began evacuations. So many refugees poured into the Human-occupied Exodus Cluster that Systems Alliance officials at first thought the Batarians were invading.

More systems have gone dark as their comm buoys were destroyed, and millions more Batarians, trapped on their planets, sit waiting for the Reapers.

The Fall of Taetrus

The Reapers' first attack on Turian space followed an age-old maxim: hit them where it hurts. A populous colony dating back centuries, Taetrus was already embedded in the Turian psyche as the site of the worst terrorist attack in Turian history. Wounds were still raw from the Vallum Blast, in which a separatist revolutionary slammed a starship into the colony's capital, killing more than a hundred thousand Turians. Hierarchy forces responded with a massive invasion of the planet to stamp out the separatist movement. It was a catharsis for the Turians, reassuring them that heroes would always triumph over evil. And so the Reapers struck Taetrus first.

By the time Taetrus went dark, the Turians had already learned that the Batarians and Humans were under attack. The Hierarchy responded with what they believed was overwhelming force, only to walk into a trap. Reaper ships were waiting on the other side of the relay to Taetrus, and they released devastating firepower the moment the fleet emerged. Turian leaders observing the one-sided battle were faced with a choice: reinforce their side of the relay to defend against a Reaper invasion, or throw more resources into an offense. With soldiers and civilians alike clamoring for retribution against the Reapers, the Turians continued the assault. The Hierarchy sent warp bombs through the relay to clear a path, fighting tooth and talon to inflict casualties against the Reaper fleet. It was a valiant effort, but doomed. The Reapers emerged victorious from the relay and began broadcasting a signal to Turian comm buoys—images of Vallum, Taetrus's capital, once again a

smoking wreck. The fight for Turian space had begun.

The Fall of Thessia

The assault on Thessia did not go as smoothly as the Reapers' strikes against other races. While other species met the Reapers head-on, the Asari resorted to dangerous hit-and-run tactics to harass their attackers. By engaging in guerilla strategies—blasting a Reaper ship, then jumping to FTL where they could not be tracked—the Asari forced the Reapers to remain on the defensive.

Unfortunately, the Reapers' greater numbers allowed them to accept certain losses, so they soon ignored the attacks against them and began orbital bombardment of Thessia. This in turn forced the Asari to defend their homeworld with a more traditional stance, facing the Reaper forces

directly. As soon as the Reapers landed on Thessia, the harvesting began.

A swift and brutal slaughter of the Asari ground forces followed. Resistance from trained biotics barely slowed the attackers down. In the end, Thessia's minimal military forces, combined with unpreparedness in the face of an overwhelming enemy, resulted in the fall of the planet.

The Battle of Palaven

When Taetrus fell, the Turians knew little about the Reapers except that they wanted to enrage the Turians. Staying calm, the Turians massed in force around Palaven, their homeworld. Fleet Admiral Irix Coronati, in what became known as the "Fifteen-Minute Plan," stationed only two carriers, Undaunted and Resolute, near the system's relay. When the Reaper fleet emerged, the carriers launched swarms of unmanned fighters and spy drones. These were quickly destroyed, but the drones transmitted vital data on the Reapers' effective range, fleet composition, and exact location. The Turians' other ships then deployed to defend the system in earnest.

Knowing that the Reapers' weapons had a longer effective range than any of

his own, Coronati made a short, daring FTL jump—landing his dreadnoughts in the middle of the Reaper fleet. The dreadnoughts then turned to line up their main guns on the Reapers, which also needed to turn to fire on the Turians. This ploy used the Reapers' size against them—because they could turn faster, the Turian dreadnoughts locked targets first, and their concentrated firepower downed several Reaper capital ships.

The Reapers countered instantly. Their destroyers performed a jump of their own to the skies above Palaven, beginning orbital strikes on Turian cities. The Turians, forced to defend the planet, found themselves in a pitched battle far from the relay, from which emerged a seemingly endless line of Reaper ships. After massive casualties, Coronati ordered retreat.

The Turians insist that Palaven is not lost—the battle has merely moved to the ground. Reaper troop transports have dumped hordes of husks to capture Palaven's inhabitants, but met with little success. Reaper capital ships are destroying city after city. But much of the Turian fleet is still operable, and the citizenry is heavily armed. The Turians refuse to be intimidated.

The Miracle at Palaven

The Turian and Krogan counterattack on Palaven combined deception, courage, and tenacity. First, the Turians leaked a false battle plan that drew on the same tactics they used at beginning of the assault on Palaven. Then the dreadnought Indomitable faked a problem with its drive core, coming out of FTL near Palaven's moon, Menae. Three other dreadnoughts and their attendant fleets deployed to assist Indomitable, a tempting target that drew the Reaper capital ships away from Palaven. Turian troop transports then entered Palaven's atmosphere to release shuttles, gliders, and individual soldier capsules.

The Reapers did not understand the seriousness of the threat at first—those that detected the landing crafts sent husks and Collector swarms to intercept them, but little more. This allowed Krogan commandos to link up with Palaven's resistance and hand off their payloads—warp bombs and fission weapons.

In simultaneous strikes across the globe, Reaper ships began to explode. Turian resistance members had managed to smuggle the bombs inside when the Reaper processing ships, troop transports, and even destroyers and capital ships had opened their structures to indoctrinated Turian leaders.

Large swaths of territory fell back into Turian and Krogan control. News of the victory gave a much-needed boost to the morale of the Turian resistance and the galactic public.

But the action was not without sacrifice. Turian insurgents gave their lives to ensure the explosives detonated, and the processing centers they destroyed were full of civilians who died just as surely as if they had been harvested. Of the dead, General Minin Resvirix said, “Whatever they were in life, their deaths had no equal. They are worthy of joining the spirit of Palaven itself.”

Revelation

Revelation is a popular military-historical novel by Human writer Drew Karpyshyn that dramatizes Human conflicts and political expansion following the 2148 discovery of the Prothean mass relay on Pluto and the beginning of Human galactic exploration. In 2165, years before his rise to political prominence, Lt. David Anderson was a young veteran of the Turian war, investigating the destruction of top secret military research station Shanxi [sic]. Every scientist stationed at Shanxi [sic] had been slaughtered except Kahlee Sanders, who'd disappeared with secret files making her Anderson's prime suspect. The book traced Anderson's dangerous investigation of Sanders, which included run-ins with Blue Suns mercenaries and a Krogan bounty hunter. The investigation uncovered illegal research into AI, and forced Anderson into an alliance with Human-hating Turian Spectre Saren Arterius, who would eventually enter into a genocidal collaboration with the Geth.

Rise of the Alliance - Paragon

A political-economic pact for collective colonial security, the Alliance is the central galactic institution of Human society. The Alliance gained associate membership to the Citadel Council in 2165 and full membership in 2183, appointing them a Councilor to represent Humanity.

Human political-economic relationships vary between combative and lucrative. The Turians who'd fought Humans during the 2157 First Contact War have become valuable trade partners, despite residual social hostility.

Other relationships are even more complicated. The rapid rise of Human political influence on the Council—achieving in decades what other waited or are still waiting centuries to acquire - has galvanized suspicion and resentment against Humanity. That negativity is vastly outweighed by the respect and trust Humanity earned by saving the Council during the 2183 attack on the Citadel, at the cost of Alliance cruisers *Cairo*, *Cape Town*, *Emden*, *Jakarta*, *Madrid*, *Seoul*, *Shenyang*, and *Warsaw* and their 2400 crew.

Rise of the Alliance - Renegade

A political-economic pact for collective colonial security, the Alliance is the central galactic institution of Human society. The Alliance gained associate membership to the Citadel Council in 2165 and assumed leadership in 2183, appointing them a Councilor to represent Humanity.

Many species regard Humanity as a rogue race and its 2183 victory following the attack on Eden Prime as a brutal and calculated sacrifice of its military rivals. Humans allegedly leveraged military victory into a political one, carving associate membership out of the violently-depopulated Council.

Because of the Human Spectre Shepard's pivotal role in saving the Council, many analysts conclude several Humans will be made candidates for Spectre status, further solidifying the Human contribution to galactic peace.

By achieving in decades what others waited centuries to receive, especially after so bloody a conflict, Humans have guaranteed themselves deep hostility and fear throughout the galaxy.

Salarians

The second species to join the Citadel, the Salarians are warm-blooded amphibians with a hyperactive metabolism. Salarians think fast, talk fast, and move fast. To Salarians, other species seem sluggish and dull-witted. Unfortunately, their metabolic speed leaves them with a relatively short life span; Salarians over the age of 40 are a rarity.

The Salarians were responsible for advancing the development of the primitive Krogan species to use as soldiers during the Rachni Wars. They were also behind the creation of the genophage bioweapon the Turians used to quell the Krogan Rebellions several centuries later.

Salarians are known for their observational capability and non-linear thinking. This manifests as an aptitude for research and espionage. They are constantly experimenting and inventing, and it is generally accepted that they always know more than they're letting on.

Biology

Salarians are noted for their high-speed metabolism, which allows them to function on just one hour of sleep a day. Their minds and bodies work faster than most sapient races, making them seem restless or hyperactive. The drawback of this active metabolism is a short lifespan of around 40 Human years.

The Salarians are amphibian haplo-diploid egg-layers; unfertilized eggs produce males and fertilized eggs produce females. Once a year, a Salarian female will lay a clutch of dozens of eggs. Social rules prevent all but a fraction from being fertilized. As a result, 90% of the species is male.

Salarians have photographic memories and rarely forget a fact. They also possess a form of psychological "imprinting", tending to defer to those they knew in their youth. Salarian hatching is a solemn ritual in which the

Dalatrass (matriarch) isolates herself with the eggs. The young Salarians psychologically imprint on her and tend to defer to her wishes.

During the hatching of daughters, the Dalatrasses of the mother and father's clans are present at the imprinting. This ensures the offspring have equal loyalty to both, ensuring the desired dynastic and political unity.

Culture

The rare Salarian females are cloistered on their worlds out of tradition and respect. Powerful female Dalatrasses are dynasts and political kingpins. They determine the political course of their respective regions through shrewd negotiation. Though male Salarians rise to positions of great authority in business, academia, or the military, they rarely have any input on politics.

Due to their method of reproduction, Salarians have no concept of romantic love, sexual attraction, or the biological impulses and social rituals that complicate Human lives. Male-female relationships are rare (due to the scarcity of females) and more akin to Human friendship.

Sexuality is strictly for the purpose of reproduction. Ancient social codes determine who gets to fertilize eggs, which produces more daughters to continue a bloodline. Fertilization generally only occurs after months of negotiation between the parents' clans, and is done for purpose of political and dynastic alliance. No Salarian would imagine defying this code.

Salarian names are quite complex. A full name includes - in order - the name of a Salarian's planet, duchy, barony, fiefdom, family, and finally, the given name.

Government

The Salarian government is called the Salarian Union. It is a labyrinthine web of matrilineal bloodlines, with political alliances formed through interbreeding.

In many ways, the Salarian political network functions like the noble families of Earth's Medieval Europe. Structurally the government consists of fiefdoms, baronies, duchies, planets, and marches (colonization clusters). These are Human nicknames; the original Salarian is unpronounceable. Each area is ruled by a single Dalatrass (matriarchal head-of-household) and represents an increasing amount of territory and prestige within the Salarian political web.

Approaching 100 members, the first circle of a Salarian's clan comprises parents, siblings, uncles, aunts, and cousins. The next circle includes second cousins, etc., and escalates to well over 1,000 members. The fourth or fifth circle of a clan numbers into the millions. Salarian loyalty is greatest to their first circle and diminishes from there. Their photographic memories allow Salarians to recognize all their myriad relatives.

League of One

Before they joined the Citadel Council, the Salarians' most potent military tool was a small reconnaissance team known as the League of One. Their primary training was in espionage and assassination. Never more than a dozen strong, the team was adept at infiltrating the tightest defenses and eliminating all necessary obstacles.

Only a few top members of government and military were privy to the League's identities. League members wore no distinguishing garments, and held no particular rank. The only evidence of their participation in the League was a small medallion presented to each member upon induction. This secrecy was maintained until the formation of the Council.

In an effort to dispel rumors and appease their new Asari partners, the Salarian Union released all classified documents pertaining to the League. The League of One was suddenly exposed and in danger of being hunted by enemies of the Salarians. Before any harm could be done, the team mysteriously disappeared. Most assumed this was a convenient lie to help hide their identities, but a few months later, the inner cabinet was murdered.

Though there was no incriminating evidence, it was clear who was responsible.

Realizing the threat posed by this rogue outfit, the Special Tasks Group dispatched a team of hunters. When they didn't return, the STG dispatched ten of its brightest operators with broad discretionary powers. Only two returned; they reported no evidence of the League.

No further incidents were reported and it was assumed the League was wiped out. Some recently declassified documents, however, have suggested there may have been a thirteenth member who eluded the Salarian military.

Military Doctrine

In principle, the Salarian military is similar to the Alliance, a small volunteer army that focuses on maneuver warfare. What differentiates the Salarians is not their equipment or doctrine, but their intelligence services and rules of engagement. The Salarians believe that a war should be won before it begins.

Conventional wisdom holds that the Salarians know everything about everyone, and this is not far from the truth. In war, the unquestioned superiority of their intelligence services allows them to use their small military to maximum effectiveness. Well before fighting breaks out, they possess complete knowledge of their enemy's positions, intentions, and timetable.

In every war the Salarians have fought, they struck first and without warning. For the Salarians, to know an enemy plans to attack and to let it happen is folly. To announce their own plans to attack is insanity. They find the Human moral concepts of "do not fire until fired upon" and "declare a war before prosecuting it" incredibly naive. In defensive wars, they execute devastating preemptive strikes hours before the enemy's own attacks. On the offensive, they have never telegraphed their intentions with a declaration of war before attacking.

Biotics are virtually unknown in the Salarian military. Those with such

abilities are considered too valuable to be used as cannon fodder and assigned to the intelligence services.

While capable of defending themselves against most threats, the Salarians know that they are small fish in a universe filled with sharks. As a point of survival, they have cultivated strong alliances with larger powers, particularly the Turians. Though the relationship between the two species was rocky at first due to the Krogan uplift fiasco, the Salarians take pains to keep this relationship strong enough that anyone who might threaten them risks Turian intervention.

Special Tasks Group

Salarian intelligence field agents are grouped into an organization called the Special Tasks Group. STG operators work in independent cells, performing dangerous missions such as counter-terrorism, infiltration, reconnaissance, assassination, and sabotage.

The STG is a proactive organization, puncturing worrisome trends before they become movements. At any time, a dozen groups are operating covertly within the lawless Terminus Systems, sowing dissent among the various factions. Civilian analysts also note how troublesome “hinge point” individuals in Terminus frequently meet unexpected deaths.

STG operators are feared throughout the galaxy for their clear-eyed, remorseless practicality. They are willing to do whatever it takes to achieve their mission, even if it kills civilians or results in the team’s own destruction. In many ways, they are akin to the Council Spectres.

Recently, a number of STG cells have been redeployed from Salarian Union. It is assumed they are in the Terminus and Attican Traverse, investigating reports of Geth activity beyond the Perseus Veil.

Security Mechs

The death of thousands of security and military personnel in the Battle of the Citadel was a loss felt throughout the galaxy. As large numbers of qualified personnel transferred to the Citadel to replace those that died, short-handed security companies filled out their numbers with large-scale use of unmanned security robots. Commonly referred to as “mechs”, the security robots are typically grouped into light and heavy varieties. Light mechs come in a variety of sizes but are easily distinguished by opposable digits that help them in their versatile security roles. Heavy mechs lack digits and are simply weapons platforms intended to keep the peace in high-threat areas. The quadrupedal dog mech has a “face” composed of contraband-detection sensors, and it too is armed in case a perpetrator resists arrest.

A typical security mech has an extremely limited virtual intelligence. Its duty is straightforward and narrow, usually to guard an area, run a friend-or-foe program to halt unauthorized access, and fire a set of prerecorded voice commands to warn troublemakers away from the area. Light security mechs are equipped with irritant sprays and electroshockers to force compliance, and heavy mechs may be outfitted with flash-bang stunners for similar purposes. When facing an opponent armed with a firearm, any mech will immediately resort to lethal antipersonnel weapons to neutralize the threat. If the situation turns violent rapidly enough, it may not even use its warnings.

Security mechs are frowned upon for actual military duty. Though tough enough to survive most firefights, their VI simply does not have the programming to plan an ambush, rescue a hostage, treat a wound, or any of countless other objectives that a soldier must be able to perform on the fly.

The Shroud

What the Krogan call the Shroud is a technological remnant of the Salarian Uplift. After Tuchanka's nuclear war released tons of smoke and dust into the atmosphere, the planet temporarily cooled from global dimming—except at the poles, where the albedo was lowered by soot. As clouds trapped the resulting heat, enormous swaths of permafrost melted, releasing methane captured in clathrates from previous millennia. This potent greenhouse gas created a runaway heat cycle that was called "the nuclear summer."

Without intervention, Tuchanka would have sunk into a slow but certain mass extinction. The Salarian solution was to assemble the Shroud, a permanent sun shield of trillions of tiny diffractory lenses placed at the L1 Lagrange point, the point in space where the lenses' naturally stable orbit would shade the planet.

The Salarians settled on a delivery method that became known as the Shroud Towers. The towers were essentially enormous coilguns that could fire a payload of lenses into space along with the equipment necessary to monitor the payload's trajectories. Many Krogan warlords enthusiastically approved of the plan, some because they believed in saving their homeworld, but most because they saw future military applications for the Shroud Towers. The Shroud was completed on schedule over the next few decades, by which time the Rachni held the warlords' full attention.

The Krogan Rebellions were not kind to the Shroud Towers. All but one was destroyed during the push for Krogan demilitarization. The remaining tower, often referred to as "the Shroud" even though that is technically incorrect, was repurposed for cloud seeding and atmospheric repair. It remains on the landscape as an anachronism, a symbol of a time when Krogan and Salarians helped themselves by aiding one another.

Silaris Armor

Asari-made Silaris armor can resist even the tremendous heat and kinetic energy of starship weapons. The armor is nearly unsurpassed in strength because its central material, carbon nanotube sheets woven with diamond Chemical Vapor Deposition, are crushed by mass effect fields into super-dense layers able to withstand extreme temperatures. That process also compensates for diamond's brittleness.

Diamond armor itself has two limiting disadvantages. First, while nanotubes and CVD-diamond construction have become cheaper in recent years, it remains prohibitively expensive to coat starships or aircraft larger than fighters in Silaris material. Second, the armor must be attached to the ship's superstructure, so shock waves from massive firepower can still destroy the metals beneath the armor itself.

A popular misconception holds that the diamond composition of Silaris armor gives it a sparkle. In fact, atmospheric nitrogen impurities during the super-hot forging process give the armor a metallic gray or yellow sheen.

Small Arms

Modern infantry weapons are micro-scaled mass accelerators, using mass-reducing fields and magnetic force to propel miniature slugs to lethal speeds. Nearly every gun on the battlefield is laden with features, from targeting auto-assists to projectile shavers that can generate thousands of rounds of ammunition from a small, internal block of metal.

It was long thought that personal weapons had plateaued in performance, but the Geth proved all theories wrong. Mathematically reviewing their combat logs, the Geth found that in an age of kinetic barriers, most firefights were won by the side who could put the most rounds down-range the fastest. But combatants were forced to deliberately shoot slower to manage waste heat, or pause as their weapons vented.

To eliminate this inefficiency, the Geth adopted detachable heat sinks known as thermal clips.

While organic arms manufacturers were initially doubtful this would produce a net gain, a well-trained soldier can eject and swap thermal clips in under a second. Faced with superior enemy firepower, organic armies soon followed the Geth’s lead, and today’s battlefields are littered with these thermal clips.

Sovereign

Mass Effect 2

The flagship of the rogue ex-Spectre Saren Arterius, Sovereign is a devastating dreadnought of unprecedented power.

At two kilometers long, Sovereign was believed to have been powered by a gigantic element zero core, the only energy source potent enough to land the massive vessel on a planet.

During the Eden Prime War, the ship unleashed its peerless destructive force against which Citadel Council ships were defenseless. With a virtually indestructible flagship and a crew of fanatic Geth and Krogan, Saren nearly succeeded in wiping out all his enemies. Only the resourcefulness and bravery of the commander and crew of the SSV Normandy stopped him.

The overwhelming power of Sovereign ignited bizarre speculations in tabloid media that the vessel was sent by extragalactic invaders, or was - despite indeterminate photographic evidence at best - a single giant robot. Some sources even claimed Sovereign was alive. Such conjecture, however baseless, remains to this day.

Mass Effect 3

Sovereign was the first Reaper encountered by the modern Citadel races. Military leaders initially assumed that Sovereign was a Geth or Prothean flagship commanded by Saren Arterius, a rogue Spectre. The truth was far more alarming. The massive ship was itself intelligent, and Saren proved to be under its control.

The attacks by Sovereign against Eden Prime and the Citadel removed any uncertainty about the

Reapers’ technological superiority. Sovereign’s formidable shielding and

firepower allowed it to hold off the combined fleets of the Citadel, and its mass effect fields proved powerful enough to let the enormous vessel land on a planet's surface.

Sovereign's mission—to open a mass relay that would transport the other Reapers from dark space—proved its undoing. During the Battle of the Citadel, Sovereign linked its consciousness to Saren's. When Saren's death corrupted the signal and shut down Sovereign's shields, Sovereign's destruction soon followed.

Space Combat

Ship mobility dominates space combat; the primary objective is to align the mass accelerator along the bow with the opposing vessel's broadside. Battles typically play out as artillery duels fought at ranges measured in thousands of kilometers, though assault through defended mass relays often occur at "knife fight" ranges as close as a few dozen kilometers.

Most ship-to-ship engagements are skirmishes between patrol vessels of cruiser weight and below, with dreadnoughts and carriers only deployed in full-scale fleet actions. Battles in open space are short and often inconclusive, as the weaker opponent generally disengages.

Once a ship enters FTL flight the combat is effectively over; there are no sensors capable of tracking them, or weapons capable of damaging them. The only way to guarantee an enemy will stand and fight is to attack a location they have a vested interest in, such as a settled world or a strategically-important mass relay.

Combat Endurance

Heat limits the length and intensity of ship-to-ship combat. Starships generate enormous heat when they fire high-energy weapons, perform maneuvering burns, and run on-board combat electronics.

In combat, warships produce heat more quickly than they can disperse it. As heat builds within a vessel, the crewed spaces become increasingly uncomfortable. Before the heat reaches lethal levels, a ship must win or retreat by entering FTL. After an FTL run, the ships halts, shuts down non-essential systems, and activates the heat radiation gear.

Combat endurance varies by ship design and by the battle's location. Battles in the deep cold of interstellar space can go on for some time. Engagements close to a star are brief. Since habitable worlds are usually close to a star,

battles over them are usually more frantic.

General Tactics

Shells lofted by surface navies crash back to earth when their acceleration is overwhelmed by gravity and air resistance. In space, a projectile has unlimited range, it will keep moving until it hits something.

Practical gunnery range is determined by the velocity of the attacker's ordinance [sic] and the maneuverability of the target. Beyond a certain range, a small ship's ability to dodge trumps a larger attacker's projectile speed. The largest-ranged combat occurs between dreadnoughts, whose projectiles have the highest velocity but are the least maneuverable. The shortest-range combat is between frigates, which have the slowest projectile velocities and highest maneuverability.

Opposing dreadnoughts open with main gun artillery duel at EXTREME ranges of tens of thousands of kilometers. The fleet close, maintaining evasive lateral motion while keeping their bow guns facing the enemy. Fighters are launched and attempt to close to disruptor torpedo range. Cautious admirals weaken the enemy with ranged fire and fighter strikes before committing to close action. Aggressive commanders advance so cruisers and frigates can engage.

At LONG range, the main guns of cruisers become useful. Friendly interceptors engage enemy fighters until the attackers enter the range of ship-based GARDIAN fire. Dreadnoughts fire from the rear, screened by smaller ships. Commanders must decide whether to commit to a general melee or retreat into FTL.

At MEDIUM range, ships can use broadside guns. Fleets intermingle, and it becomes difficult to retreat in order. Ships with damaged kinetic barriers are vulnerable to wolfpack frigate flotillas that speed through the battle space.

Only fighters and frigates enter CLOSE "knife fight" ranges of 10 or fewer kilometers. Fighters loose their disruptor torpedoes, bringing down a ship's

kinetic barriers and allowing it to be swarmed by frigates. GARDIAN lasers become viable weapons, swatting down fighters and boiling away warship armor.

Neither dreadnoughts nor cruisers can use their main guns at close range; laying the bow on a moving target becomes impossible. Superheated thruster exhaust becomes a hazard.

Planetary Assaults

Planetary assaults are complicated if the target is a habitable garden world; the attackers cannot approach the defenders straight on.

The Citadel Conventions prohibit the use of large kinetic impactors against habitable worlds. In a straight-on attack, any misses plough into the planet behind the defending fleet. If the defenders position themselves between the attackers and the planet, they can fire at will while the attacker risks hitting the planet.

Successful assaults on garden worlds hinge upon up-to-date intelligence. Attackers need to determine where the enemy's defenses are, so they may approach from an angle that allows them to fire with no collateral damage. Note this is not necessary for hostile worlds.

Once control of orbit has been lost, defensive garrisons disperse into the wilderness. An enemy with orbital superiority can bombard surface forces with impunity. The best option for defenders is to hide and collect reconnaissance in anticipation of relief forces.

Given the size of a planet, it is impractical to garrison entire conquered worlds. Fortunately, colonization efforts tend to focus on building up a dozen or fewer areas. Ground forces occupy the spaceports, industrial facilities, and major population centers. The wilderness is patrolled by unmanned aerial vehicles and satellite reconnaissance. If a defender unit is spotted, airmobile rapid deployment units and satellite artillery are used to pin down and destroy them.

Pursuit Tactics

Dependent on light, sensors cannot detect objects moving at a faster-than-light speeds. No ship can be detected at interstellar ranges. Detection at interplanetary ranges suffers from light speed lag: observers see ships not where they appear to be but where they were when the light bearing their image left them, minutes, hours, or days before. To counteract light speed lag, battle fleets surround themselves with spheres of screen and scouting frigates.

Pursuers cannot detect ships and directly intercept them. Instead, pursuers track where objects were, where they were heading, and at what speed they were moving. Such data reliably predicts an object's future location and for pursuit along its light-lagged "wake". Ships trying to evade pursuit follow erratic zigzag courses, requiring pursuers to make stops to update their projections.

Trans-Relay Assaults

The crucial choice for any attack through mass relays is how to divide the fleet for transit. The accuracy of a relay's mass-projection depends on the mass being moved and how far it's going. Any long distance and/or high mass jump will see "drift". That is, a ship may be hundreds or millions of kilometers from its intended drop point, in any direction from the relay.

Distance can't be chosen by admirals, but a relay is told how much mass to transit. For example, if told to move a million metric tons of mass, the relay will scan the approach corridor, find four 250,000-ton freighters, and transit them toGether, maintaining their relative positions.

A commander has the option of moving his fleet as one large, coherent formation that may be wildly off-position, or breaking it up into many smaller formations that will be individually closer to the intended attack point, but could be widely dispersed.

Conservative assault doctrine holds that fleets should be moved en masse, maintaining concentration of force and reducing the chances of collision. The only time it is reasonable to split up a formation is during blockade running.

Spectres

Spectres are agents from the Office of Special Tactics and Reconnaissance and answer only to the Citadel Council. They are elite military operatives, granted the authority to deal with threats to peace and stability in whatever way they deem necessary.

They operate independently or in groups of two or three. Some are empathetic peacekeepers, resolving disputes through diplomacy. Others are cold-blooded assassins, ruthlessly dispatching problem individuals. All get the job done, one way or another, often operating outside of the bounds of galactic law.

The Spectres were founded after the Salarians joined the Council. For many years, they operated in secrecy, as back-room “problem solvers”. Only after the Krogan Rebellions did their activities become publicized. Assignment of a Spectre is less contentious than military deployment, but makes it clear that the Council is concerned about a situation.

Starships

Carriers

All races provide their fleets with organic fighter support. Cruisers fit a handful in the space between the interior pressure hulls and exterior armor. Dreadnoughts have a hangar deck within the hull. Humans - who had only recently “graduated” from surface to space combat - were the first to build ships wielding fighters as the main armament.

In fleet combat, carriers stay clear of battle, launching fighters bearing disruptor torpedoes. Fighters are the primary striking power of the ship; if a carrier enters mass accelerator range of the enemy, things have gone very wrong.

It is possible to recover and rearm fighters during combat, though most carriers seal the flight deck and try to stay out of the way. The flight deck is essentially a corridor through the armor and into the heart of the vessel. A single well-placed torpedo is enough to gut a carrier.

Alliance carriers are named after great leaders, artists, and intellectuals from Human history.

Crew Considerations

Cabins give each individual ten cubic meters of space. On larger vessels private rooms are common. As ships get smaller, the number of crew packed into a single wardroom increases. Asari prefer shared spaces even on large vessels while Krogan territorial instincts make it impossible for them to cohabitate even on the largest ships.

On smaller vessels, “hot bunking” is the norm. Crew members are assigned

different watches share the same bunk. When one gets off-duty, he wakes up the person in the bunk. While that crewman is on duty, the first gets his rack time.

Spacecraft compartments can be isolated by air-tight doors in case of decompression. The cinematic version of explosive decompression is fiction; holed compartments either take enough damage that the occupants are killed instantly, or leak slowly enough that they are able to reach protective gear.

Compartments are equipped with Emergency Life Supports Apparatus: fireproof plastic bubbles with air bottles. Small when stowed, ELSA comfortably accommodate one individual inflated. Damage control procedure cuts off ventilation to burning compartments. Without oxygen to consume, fires die in seconds. The compartment is re-pressurized afterward for crew recovery.

Mass effect fields create an artificial gravity (a-grav) plane below the decks, preventing muscle atrophy and bone loss in zero-gee. Large vessels arrange their decks perpendicular to their thrust axis. The “highest” decks are at the bow, and the “lowest” decks at the engines. This allows agrav to work with the inertial effects of thrust. Ships that can land arrange their decks laterally, so the crew can move about while the vessel is on the ground.

Warships normally turn off their a-grav systems during combat, reducing heat generated by systems and increasing combat endurance. To provide a point of reference for navigating in zero-gee, floors are painted a different color from the walls and ceiling.

Cruisers

Cruiser-weight starships are the standard combat unit encountered away from large naval bases, the “poor bloody infantry” of most fleets. Nimble scouting frigates have neither the punch nor the stamina to stand up to serious combat, and the mighty dreadnoughts are a strategic resource, carefully hoarded and committed to the most critical battles.

Cruisers perform routine independent “show the flag” patrols in settled systems and lead flotillas of frigates in small engagements, such as pirate suppression campaigns. In major fleet engagements, cruiser squadrons support the dreadnought battle line by screening their flanks against enemies attempting to maneuver for a main gun “bow shot” from their vulnerable broadsides.

Alliance cruisers are named after cities of Earth.

Dreadnought

The ultimate arbiter of space warfare, the dreadnought employs millions of tons of metal, ceramic, and polymer in the projection of firepower against an enemy vessel of like ability. No sane commander would face a dreadnought without a dreadnought of his or her own.

A dreadnought’s power lies in the length of its main gun. Dreadnoughts range from 800 meters to one kilometer long, with main guns of commensurate length. An 800-meter mass-accelerator is capable of accelerating one 20 kg slug to a velocity of 4025 km/s (1.3% of light speed) every two seconds. Each slug has the kinetic energy of 38 kilotons of TNT, enough to destroy the infrastructure of a mid-sized city and kill half a million people.

Because of air friction, planets with atmospheres do not feel a slug’s full devastation.

Atmospheric drag reduces impact force by 20% per Earth atmosphere of air.

At present, the Turian fleet possesses 39 dreadnoughts, the Asari 20, and the Salarians 16. Each of the Human Alliance’s eight dreadnoughts is named for terrestrial mountains.

Everest Class: *Everest, Fuji, Elbrus*

Kilimanjaro Class: *Kilimanjaro, Tai Shan, Shasta, Aconcagua, Orizaba*

Fighters

Fighters are single-pilot combat small craft. They are lightweight enough that they can be economically fitted with powerful element zero cores, making them capable of greater acceleration and sharper maneuvers than starships.

Kinetic barrier shields changed starship battles from short, vicious bloodbaths to extended, indecisive slugging matches. Only the main gun of a dreadnought could punch a mass accelerator slug through the barriers of an opposing dreadnought. This changed with the development of the fighter-launched mass disruptor torpedo, a short-ranged weapon that can penetrate kinetic barriers to destroy their projector assemblies.

Starship GARDIAN defenses must be overwhelmed through swarm tactics. Fighter groups can take heavy casualties pressing their torpedo attacks home. Once fighter-launched torpedoes have crippled an enemy's barriers, the mass accelerators on frigates and cruisers can make short work of them.

Interceptors are a type of fighter optimized to attack other fighters, with no ability to damage starships. Interceptors are used to screen friendly units from incoming fighter attack.

Frigates

Frigates are light escort and scouting vessels. They often have extensive GARDIAN systems to provide anti-fighter screening for capital ships, and carry a squad of marines for security and groundside duty. Unlike larger vessels, frigates are able to land on planets.

The most important role filled by frigates is reconnaissance. Sensors, unlike ships and communications employing the mass effect, are limited to the speed of light, therefore a stationary observer can detect a vessel a light year away only when its light year arrives a year later.

Because faster than-light attackers always arrive before defenders can detect them with luminal sensors, attackers can always surprise defenders. For defense, fleets surround themselves with spheres of scouting frigates scanning for enemy ships and transmitting warnings to the main body.

Frigates achieve high FTL cruise speeds because of their high-performance drives. They also have proportionally larger thrusters and lighter design mass, allowing them greater maneuverability. In combat, speed and maneuverability make frigates immune to long-range fire of larger vessels.

In fleet combat, frigates are organized into “wolf pack” flotillas of four to six. Wolf packs speed through enemy formations, hunting enemy vessels whose kinetic barriers have been taken down by fighter-launched disruptor torpedoes. The wolf pack circle-strafes vulnerable targets, using their superior speed and maneuverability to evade return fire.

Alliance frigates are named for great battles in Human history.

Heat Management

Dispersal of heat generated by onboard systems is a critical issue for a ship. If it cannot deal with heat, the crew may be cooked within the hull.

Radiation is the only way to shed heat in a vacuum. Civilian vessels utilize large, fragile radiator panels that are impossible to armor. Warships use Diffuse Radiator Arrays (DRA), ceramic strips along the exterior of the armored hull. These make the ship appear striped to thermographic sensors. Since the arrangement of the strips depends on the internal configuration of the ship, the patterns for each vessel are unique and striking. On older ships, the DRA strips could become red- or white-hot. Dubbed “tiger stripes” or “war paint” by Humans, the glowing DRA had a psychological impact on pirates and irregular forces.

Strip radiators are not as efficient as panels, but if damaged by enemy fire, the ship only loses a small portion of its total radiation capacity. In most

cases, a vessel's DRA alone allows it to cruise with no difficulties. Operations deep within solar systems can cause problems.

A ship engaged in combat can produce titanic amounts of heat from maneuvering burns and weapons fire. When fighting in a high heat environment, warships employ high-efficiency "droplet" heat sinks.

In a droplet system, tanks of liquid sodium or lithium absorb heat within the ship. The liquid is vented from spray nozzles near the bow as a thin sheet of millions of micrometer-scale droplets. The droplets are caught at the stern and recycled into the system. A droplet system can sink 10-100 times as much heat as DRA strips.

Droplet sheets resemble a surface ship's wake through water. The wake peels out in sharp turns, spreading a fan of droplets as the ship changes vectors and leaves the coolant behind.

Quarian Liveships

There are few wide-open spaces in Quarian spacecrafts; liveships are the exception. Each ship is a massive hydroponics facility, growing thousands of tons of genetically modified staple crops under artificial light and in highly enriched soil.

The surface of a liveship is studded with docking bays so as many shuttles as possible can distribute the foods throughout the flotilla on a daily basis. When received, the crops are sterilized with radiation, ground up into nutritious paste, and pumped into Quarian suits through feeding tubes. In return, waste products are that could be used as fertilizer or compost are returned to the liveships through an efficient (if odorous) recycling program.

Liveships do not hold animals. The Quarians consume a vegan diet, driven not by ethics but by practicality. Captive animals require living space, and consume large amounts of water and plant matter. The Quarians cannot afford such an inefficient resource-to-calorie ratio, to say nothing of a live

animal’s disease or allergen potential. As a result, when the flotilla arrives in a star system where life is based on the same dextro-amino acids that the Quarians consume, pastes based on animal proteins fetch highly inflated prices, and the vendors are typically mobbed by Quarians wanting a new taste sensation. The sickness that often follows these binges is treated much the same way as hangovers are in Human culture; painful, but part of the overall experience of excess.

Sensors

“Light lag” prevents sensing in real time at great distances. A ship firing its thrusters at the Charon Relay can be easily detected from Earth, 5.75 light-hours (six billion kilometers) away, but Earth will only see the event five hours and 45 minutes after it occurs. Due to the light-speed limit, defenders can’t see enemies coming until they have already arrived. Because there is FTL travel and communications but no FTL sensors, frigates are crucial for scouting and picket duties.

Passive sensors are used for long-range detection, while active sensors obtain short-range, high quality targeting data.

Passive sensors include visual, thermographic, and radio detectors that watch and listen for objects in space. A powered ship emits a great deal of energy; the heat of the life support systems; the radiation given off by power plants and electrical equipment; the exhaust of the thrusters. Starships stand out plainly against the near-absolute zero background of space. Passive sensors can be used during FTL travel, but incoming data is significantly distorted by the effect of the mass effect envelope and Doppler shift.

Active sensors are radars and high resolution LADARs (LAser Detection And Ranging) that emit a “ping” of energy and “listen” for return signals. LADARs have a narrower field of view than radar, but LADAR resolution allows images of detected objects to be assembled. Active sensors are useless when a ship is moving at FTL speeds.

Thrusters

A mass effect drive core decreases the mass of a bubble of space-time around a ship. This gives the ship the potential to move quickly, but does not apply any motive power. Ships use their sublight thrusters for motive power in FTL. There are several varieties of thruster, varying in performance versus economy. All ships are equipped with arrays of hydrogen-oxygen reaction control thrusters for maneuvering.

Ion drives electrically accelerate charged particles as a reaction mass. They are extremely efficient, but produce negligible thrust. They are mainly used for automated cargo barges.

The primary commercial engine is a “fusion torch”, which vents the plasma of a ship’s power plant. Fusion torches offer powerful acceleration at the cost of difficult heat management. Torch fuel is fairly cheap: helium-3 skimmed from gas giants and deuterium extracted from seawater or cometary bodies. Propellant is hydrogen, likewise skimmed from gas giants.

In combat, military vessels require accelerations beyond the capability of fusion torches. Warship thrusters inject antiprotons into a reaction chamber filled with hydrogen. The matter-antimatter annihilation provides unmatched motive power. The drawback is fuel production; antiprotons must be manufactured one particle at a time. Most antimatter production is done at massive solar arrays orbiting energetic stars, making them high-value targets in wartime.

The exhaust of fusion and antiproton drives is measured in millions of degrees Celsius. Any vessel caught behind them will melt like wax in a blowtorch.

Any long-duration interstellar flight consists of two phases: acceleration and deceleration. Starships accelerate to the half-way point of their journey, then flip 180 degrees and apply thrust on the opposite vector, decelerating as they finish the trip. The engines are always operating, and peak speed is attained at the middle of the flight.

Stations

Arcturus Station

Arcturus Station is the gateway to Sol, a 5-kilometer diameter “Stanford Torus”-type space station at the trailing Lagrange point of the gas giant Themis. Construction on Arcturus Station began in 2151 and concluded in 2162. It was inaugurated in 2156, and has served as the military and political headquarters of the Systems Alliance from the First Contact War until the present.

When Humanity activated the Charon Mass Relay in 2149, it led to Arcturus, 36 light years from Sol, Earth’s sun. Arcturus is the third brightest star seen from Earth. It is an ancient red giant from the generation born before Sol. Its worlds are either gas giants or ice chunks. While some rocky debris exists, the metal content is 25% lower than normal. To build Arcturus Station, metallic asteroids were towed through the mass relays to the construction site. Many of these asteroids remain near the station, their mined out areas home to transient populations.

The expense of bringing construct materials into the system was acceptable due to its strategic value. With three primary mass relays in addition to the secondary one to Sol, Arcturus is a major communications and military chokepoint. The Alliance 1st Fleet is based in Arcturus, where it can guard the gates to Sol and react to incursions in the three connected clusters. The Station also hosts the Systems Alliance Parliament and the Systems Alliance Military general headquarters. Its permanent population is approximately 45,000.

Arcturus is actually from the galactic halo, one of a cluster of 52 stars that are “crashing through” the disc of the galaxy. In a billion years, Arcturus will be sailing through the depths of extragalactic dark space.

Gagarin Station (“Jump Zero”)

Gagarin Station is the largest deep space station built by Humanity, a “Bernal Sphere” designed with a 500-meter-diameter habitable area. It was constructed beyond Pluto, nearly 80 Astronomical Units (12 billion kilometers) from Sol. Moving crew and materials to this location bankrupted most of the backers.

Gagarin was placed at the inner edge of the “heliopause1” - the point at which the solar wind can no longer push back the interstellar medium1. It was built to test a number of faster-than-light drive principles that theoretically could only occur in interstellar space. The station was nicknamed “Jump Zero”, as it was intended to be the jumping-off point for Humanity’s expansion into the galaxy. Shortly after the station was completed, the Prothean ruins were discovered on Mars, rendering the entire effort moot.

After struggling to make a profit for a decade, Gagarin was sold to the Systems Alliance in 2159 for a fraction of its construction costs. The Alliance refurbished it as a research and training center for the recently discovered biotic phenomenon.

In 2169, the Biotic Acclimation and Temperance Training program was shut down and Gagarin became a general research facility. Its remote location and intentional isolation from the extranet makes it popular for dangerous research, particularly in the field of artificial intelligence. Humanity’s first stable A.I., the Alliance-sponsored “Eliza”, achieved sapience at Gagarin in 2172.

Today, Gagarin Station has a permanent population of approximately 9,000. A plan has been proposed to move it to the gravitationally stable barycenter point between Pluto and the Charon Relay allowing it to serve as a gateway facility between the Sol and Arcturus systems. The high cost of safely moving its mass has delayed this indefinitely.

Systems Alliance

The Systems Alliance is an independent supranational government representing the interests of Humanity as a whole. The Alliance is responsible for the governance and defense of all extra-solar colonies and stations.

The Alliance grew out of the various nation space programs as a matter of practicality. Sol's planets had been explored and exploited through piecemeal nation efforts. The expense of colonizing entire new solar systems could not be met by any one country. With Humans knowing that alien contact was inevitable, there was enough political will to jointly fund an international effort.

Still, the Alliance was often disregarded by those on Earth until the First Contact War. While the national governments dithered and bickered over who should lead the effort to liberate Shanxi, the Alliance fleet struck decisively. Post-War public approval gave the Alliance the credibility to establish its own Parliament and become the galactic face of Humanity.

Geological Survey

As the Human race expands its territory and raises the general standard of living, demand for industrial resources continues to grow. Many planets, moons, and asteroids contain a wealth of resources, but many systems have been barely charted, let alone thoroughly surveyed. Unmanned probes are one solution, but they are often lost to space hazards, unforeseen circumstances, or theft by salvagers.

In recent years, AGS, the Alliance Geological Service, has offered bounties to private individuals or teams willing to perform mineralogical surveys on the frontier. This survey data is made publicly available to further corporate development. Due to the cost of travel and the dangers of operating on hostile worlds, it is rarely a profitable endeavor.

- **LIGHT METALS** - Metals with low atomic weight are often used in the construction of spacecraft and vehicles.
- **HEAVY METALS** - Metals with higher atomic weights are used to construct equipment components. The platinum group elements are particularly useful.
- **RARE EARTHS** - Most useful in this category are radioactives or magnets.
- **GASSES** - Various gasses are required to support all known forms of sapient life. Some are commonly used as fuel.

Military Doctrine

The Alliance military is of great concern to the galaxy. At first contact with the Turians, they were completely inexperienced. Turian disdain turned to respect after the relief of Shanxi, where the Humans surprised them with novel technologies and tactics.

The Human devotion to understanding and adapting to modern space warfare stunned the staid Council races. For hundreds of years, they had lived behind the secure walls of long-proven technology and tactics. The Council regards the Alliance as a “sleeping giant”. Less than 3% of Humans volunteer to serve in their military, a lower proportion than any other species.

While competent, Alliance soldiers are neither as professional as the Turians nor as skilled as the Asari. Their strengths lie in fire support, flexibility, and speed. They make up for lack of numbers with sophisticated technical support (V.I.s, drones, artillery, electronic warfare) and emphasis on mobility and individual initiative.

Their doctrine is not based on absorbing and dishing out heavy shocks like the Turians and Krogan. Rather, they bypass enemy strong points and launch deep into their rear, cutting supply lines and destroying headquarters and support units, leaving enemies to “wither on the vine”.

On defensive, the Human military is a rapid reaction force that lives by Sun Tzu's maxim, "He who tries to defend everything defends nothing." Garrisons are intended for scouting rather than combat, avoiding engagement to observe and report on invaders using drones.

The token garrisons of Human colonies make it easy for alien powers to secure them, for which the Alliance media criticizes the military. However, the powerful fleets stationed at phase gate nexuses such as Arcturus are just a few hours or days from any colony within their sphere of responsibility. In the event of an attack, they respond with an overwhelming force.

Military Jargon

- **ashore** - When a ship's crew leaves the vessel, they are "ashore". Though normally used regarding planets, it can refer to boarding a space station.

- **aweigh** - When a ship releases the equipment tethering it to a space station or surface dock, it is "aweigh".

- **aye, aye** - The proper way to acknowledge an order. If told to attack the correct response is "Aye, aye, sir." If asked "Are you proud to be a marine?" the correct response is "Yes, sir."

- **ASAP** - Pronounced "a-sap", an acronym of "as soon as possible".

- **belay** - Stop, cease.

- **bridge** - The navigation center of a spacecraft, where the steering is done.

- **captain's mast** - Non-judicial disciplinary proceedings by unit commanders.

- **CIC** - Combat Information Center, the command center of a spacecraft. The CIC is filled with sensor displays to make sense out of the chaos of

combat.

- **DC** - Damage Control. The containment and repair of damage to a spacecraft.
- **ECM** - Electronic Counter-Measures used to avoid enemy sensors, from passive emissions masking to active jamming.
- **EVA** - Extra-Vehicular Activity. Time spent in a pressure suit, outside of a vehicle, spacecraft, or station.
- **flank** - The flank is the “side” of a military formation. Since the soldiers are facing elsewhere, an enemy that can attack on the flank can often “turn it” or “roll it up”.
- **FNG** - Fuckin’ New Guy(s). A derisive term for inexperienced personnel.
- **groundside** - The surface of a planet.
- **helmsman** - The crewmember who pilots the spacecraft.
- **LADAR** - Light-amplified detection and ranging. An active sensor that bounces lasers off an object to determine its bearing and distance. Ladar has sufficient resolution that the data can be reconstructed into an image.
- **shore party** - Spacecraft’s crew sent ashore on official business.
- **silent running** - An old submariner’s term used aboard the Normandy to denote when stealth systems are active.
- **sitrep** - Abbreviation of “situation report”, an evaluation of the current military situation.
- **spacer** - Someone who has spent most of their life in space.
- **XO** - Executive Officer, the second-in-command of an Alliance warship. The XO is responsible for administrative and personnel matters.

Military Ranks

The Alliance uses a modified version of the ranking system that has been used for hundreds of years. Soldiers are classified into rank-and-file enlisted personnel, experienced non-commissioned officers (NCOs), and specially trained officers.

The divide between naval personnel and ground forces (“marines”) is small. Ground units are a specialized branch of the fleet, just as fighter squadrons are. This unity of command is imposed by the futility of fighting without control of orbit; without the navy, any army is pointless. The marines, as a matter of pride, maintain some of their traditional rank titles; for example, marines have Privates and Corporals instead of Servicemen.

In ascending order of responsibility, the ranks of the Alliance are:

ENLISTED

- Serviceman 3rd Class/Private 2nd Class
- Serviceman 2nd Class/Private 1st Class
- Serviceman 1st Class/Corporal

NON COMMISSIONED OFFICERS

- Service Chief
- Gunnery Chief
- Operations Chief

OFFICERS

- 2nd Lieutenant
- 1st Lieutenant

- Staff Lieutenant
- Lieutenant Commander
- Staff Commander
- Captain/Major
- Rear Admiral/General
- Admiral
- Fleet Admiral

N7

The Alliance Military Vocational Code system classifies the career path of all serving personnel.

The MVC consists of one letter and one number. A soldier's MVC indicates proficiency, not rank. The letter notes career path; the number indicates level of experience, as indicated by service record, technical scores, and commendations. All 26 letters are used, and numbers run from 1 to 7. N is the letter code for Special Forces personnel.

Special Operations

Interplanetary Combatives Training (ICT) is the Systems Alliance's premier school for leadership and combat expertise. The Interplanetary Combatives Academy, sometimes called "N-School" or "the villa," recruits officers from every branch of Earth's militaries to partake in grueling courses at Vila Militar in Rio de Janeiro.

Initially, candidates train for more than 20 hours per day, leading small combat teams through hostile terrain with little sleep or food. Trainees who do well are awarded an internal designation of N1 and are invited to return.

Subsequent courses - N2 through N6 - are often held off-planet and include instruction in zero-G combat, military free-fall (parachuting), jetpack flight, combat diving, combat instruction, linguistics, and frontline trauma care for Human and alien biology.

The highest grade of training, N6, provides actual combat experience in combat zones throughout the galaxy. If the trainee survives these scenarios in “admirable and effective fashion,” he or she finally receives the coveted N7 designation. N7 is the only ICT designation that may be worn on field or dress uniforms.

There is little shame in failing an N course - the training is so extreme that even qualifying for N1 elevates an officer to a position of respect. The universal prestige of merely attending the academy helps to restrain trainees from taking excessive risks in pursuit of higher honors.

Although ICT qualification by itself does not guarantee higher rank, those officers who are able to complete the program are typically well suited to senior leadership positions.

Tech Armor and Fortification

Although body armor and kinetic barriers provide significant protection for relatively low cost, technically savvy soldiers sometimes go further.

“Tech Armor” is the common term for a complex series of field generators that disrupt incoming force using a stationary warp effect. The theory is that bullets that would normally shatter on impact instead break apart when they strike the field. The field then bleeds away the shrapnel’s kinetic energy. The standard design for tech armor traps the warp field between two low-yield kinetic barriers to protect the user from the field itself. When the outer barrier fails, the warp effect is discharged, potentially harming anyone nearby. For this reason, many soldiers modify the armor with a haptic-style light effect to warn allies not to get too close. On missions where stealth is paramount, this effect is disabled. Cynical soldiers joke that the design is called “tech armor” because if it were simply called “warp armor,” no one would use it.

The “fortification” approach uses high-energy batteries and superconductive devices within the armor to create a Foucault-current effect, essentially a magnetic field that can immobilize metals, even nonferrous ones. The field is triggered by sensors similar to those in a kinetic barrier. It is powerful enough to protect against most modern weapons, but there are drawbacks. The currents cause metallic objects to hold their position relative to one another, and although the field only lasts for a split second, it creates resistance that can slow or fatigue the wearer. Without specialized training, a soldier can quickly become exhausted or stumble at the wrong time.

Technology

Combat Simulator

In the absence of realistic terrain or equipment, military organizations will often make use of a combat simulator as a method of training soldiers for varied combat environments.

Holographic projectors are used to create visual representations of opponents and obstacles.

Kinetic barriers are then cast to prevent participants from passing through the obstacles and terrain. Kinetic barriers are also used to simulate weapon damage and shockwaves. However, while most trainers agree that pain is the best teacher, all government-sponsored combat simulators are required to make use of extensive safety protocols to prevent any serious, permanent damage to participants.

Pinnacle Station

Pinnacle Station is a Turian space station that has been retrofitted as a military training facility by the Council. Invitees participate in a series of simulated combat encounters and compete against other participants.

Prefabricated Structures

When colonizing a planet, corporations will often make use of prefabricated, or ‘pre-fab’

structures to quickly and easily deploy a base of operations. These residential structures feature full living quarters and a large solarium from which residents may observe the planet’s surface.

While most Human colonies have the support of the Alliance military or

some corporate-sponsored defense contractor, many civilian colonists choose to keep a small stock of armaments in their home. These weapons are a last resort, but are often critical to staving off a pirate attack until support arrives.

Prothean Beacon

In 2183, Human scientists uncovered a Prothean technological artifact on the planet of Eden Prime. While repelling an attack by Saren Arterius' Geth allies, Commander Shepard's squad came into the artifact's proximity and set it off. The object, described as a beacon, sent the Commander jumbled sounds and images intended to warn of the imminent Reaper invasion. The beacon overloaded during the process and violently exploded.

While the vision it provided was dismissed by the Citadel Council as a highly subjective experience, since that time, the Council's Committee on Paleotechnology have analyzed the fragments of the beacon in an effort to understand how it communicated. What they found was not quite the "telepathic technology" that the Alliance marines described in their reports.

The beacon was equipped with a mass effect field generator to hold its subject immobile, a necessary step to minimize collateral damage during the rest of the process. The beacon then nearly instantaneously scanned the structure of its target's optic and auditory nerves as well as many parts of the brain responsible for memory. Once its expert system determined the proportions of these key features, the beacon stimulated them with pinpoint electromagnetic and other irradiative energy, using powerful programs to recreate any images or sound the beacon required. In principle, this was similar to the popular entertainment device known as a "simstim," but vastly more comprehensive—simstims direct the senses, not memory.

The Normandy's medical officer noted that the beacon delivered more information over the space of seconds than a simstim could do in hours, and managed to do so to a species whose physiology was completely unknown to its designers. To a paleotech, the fact that Commander Shepard needed assistance to decipher the message is a minor footnote compared to the

Protheans' accomplishment-getting any of the message to Shepard at all.

Translation

Human cultures remain linguistically divided. Some converse in Spanish, others in Mandarin, Arabic, Swahili, etc. Every alien race has their own equally broad panoply of languages and dialects.

Most individuals know only their mother tongue, and rely on machine translation. Modern portable computers allow anyone with a few hundred credits of equipment to enjoy seamless real-time translation of alien languages, courtesy of handheld PDAs, computers in clothing or jewelry, or sub-dermal implants. Without fast and accurate translation, galactic trade and culture would not exist.

Governments provide subsidized software, updated through the public extranet "on the fly", often as users approach spaceport customs facilities. Even the Batarians, who isolated themselves from galactic society nearly two decades ago, take pains to provide up-to-date glossaries and linguistic rules, though most suspect that this is only so they can continue exporting propaganda.

It is still considered broad-minded and practical to be able to speak without machine aid. Children often take courses in alien language, and most races can speak the simplified artificial "trade tongue" with little difficulty.

Some species must rely on machine translation to interact with the rest of the galaxy. Hanar, for example, cannot reproduce the spoken language of any Humanoid species, and other races cannot reproduce Hanar bioluminescence without mechanical aid. Newly discovered or obscure races don't have machine translation available until the linguists have had time to study them.

Terminus Systems

The Terminus Systems are located on the far side of the Attican Traverse, beyond the space administered by the Citadel Council or claimed by the Human Systems Alliance. It is populated by a loose affiliation of minor species, united only in their refusal to acknowledge the political authority of the Council or adhere to the Citadel Conventions.

Their independence comes at a price; the Terminus is fraught with conflict. War among the various species is common, as governments and dictators constantly rise and fall. The region is a haven for illegal activities, particularly piracy and the slave trade.

At least once a year, a fleet from Terminus invades the nearby Attican Traverse. These attacks are typically small raids against poorly defended colonies. The Council rarely retaliates, as sending patrols into the Terminus Systems could unify the disparate species against their common foe, triggering a long and costly war.

Terra Firma Party

Terra Firma is an Alliance political party formed after the First Contact War. Its policy agenda is based on the principle that Earth must “stand firm” against alien influence. This covers a variety of legislation. Recent activities by Terra Firma include opposition to a law requiring high school alien language study, a proposal to increase tariffs on alien imports, and leading a popular movement to mark the First Contact War as a public holiday.

Though founded by well-meaning individuals who feared the subversion of native Human cultures under a wave of “alien vogue”, Terra Firma’s agenda attracts many jingoists and xenophobes.

Thanix Magnetic-Hydrodynamic Weapon

After the Battle of the Citadel, Human and Turian volunteers spent three months clearing the station's orbit of debris. During the cleanup, the Turians secretly salvaged *Sovereign*'s powerful main gun along with much of the weapon's element zero core. Eleven months later, the Turians introduced the Thanix, a scaled-down version of the weapon.

The Thanix's core is a liquid alloy of iron, uranium, and tungsten suspended in an electromagnetic field powered by element zero. The molten metal, accelerated to a significant fraction of the speed of light, solidifies into a projectile as it is fired, hitting targets with enough force to pierce any known shield or armor. The gun can fire reliably every five seconds.

The weapon's relatively small size allows it to be mounted on most fighters or frigates. It is now widely used by the Alliance military and is the primary weapon on the refurbished *Normandy* SR-2.

Thresher Maws

Thresher maws are subterranean carnivores that spend their entire lives eating or searching for something to eat. Threshers reproduce via spores that lie dormant for millennia, yet are robust enough to survive prolonged periods in deep space and atmospheric re-entry. As a result, thresher spores appear on many worlds, spread by previous generations of space travelers.

The body of a thresher never entirely leaves the ground; only the head and tentacles erupt from the earth to attack. In addition to physical attacks, threshers have the ability to project toxic chemicals and emit bursts of infrasound as a shockwave weapon.

The Alliance first encountered threshers on the colony Akuze in 2177. After contact was lost with the pioneer team, marine units were deployed to investigate. The shore parties were set upon by hungry threshers, and nearly the entire assault force was killed. Alliance forces recommend engaging threshers with vehicle-mounted heavy weapons.

Timeline

- 2069 - Armstrong Outpost at Shackleton Crater becomes the first Human settlement on Luna. It is formally founded on July 24, the 100th anniversary of the first lunar landing.
- 2103 - Lowell City in Eos Chasma becomes the first Human settlement on Mars.
- 2137 - Eldfell-Ashland Energy Corporation demonstrates helium-3 fuel extraction from the atmosphere of Saturn.
- 2142 - Construction of Gagarin Station (Jump Zero) begins beyond the orbit of Pluto.
- 2148 - Prospectors discover the Prothean ruins at Promethei Planum on Mars.
- 2149 - Translation of Prothean data leads Humans to the Charon mass relay. Systems Alliance founded to coordinate exploration and colonization of extra-solar worlds.
- 2151 - A shipping accident at Singapore International Spaceport exposes downwind communities to containers of dust-form element zero. Alliance begins construction of Arcturus Station.
- 2152 - Roughly 30% of the children born in Singapore after element zero exposure suffer from cancerous growths. Systems Alliance begins settlement of Earth’s first extra-solar colony world, the planet Demeter.
- 2154 - Commander Shepard born.
- 2155 - Systems Alliance occupies completed portions of Arcturus Station as a headquarters.
- 2156 - Some children of Singapore exhibit minor telekinetic abilities.

- 2157 - Turians encounter Human explorers; First Contact War. Occupation and liberation of the Human colony of Shanxi.
- 2158 - Humans learn potential of biotics. An international effort to track element zero exposures begin. Roughly 10% of exposed children show some sign of biotic ability.
- 2160 - Systems Alliance Parliament formed.
- 2165 - Humans establish embassy on Citadel.
- 2170 - Batarian slavers attack the Alliance colony Mindoir.
- 2176 - Skyllian Blitz- Pirates and slavers attacked Elysium, the Human capital in the Skyllian Verge.
- 2177 - Thresher maws devour the Alliance colony of Akuze.
- 2178 - In retaliation for the Skyllian Blitz, an Alliance fleet wipes out an army of slavers on the moon of Torfan.
- 2183 - Geth led by rogue Spectre Saren Arterius attack the Citadel, ensuing in a battle that cost thousands of lives. A few weeks later, the SSV Normandy is ambushed and destroyed. Commander Shepard is presumed dead.
- 2185 - An alien race known as the Collectors abducts thousands of Human colonists in the Terminus Systems. Commander Shepard leads a team beyond the Omega 4 Relay to attack the Collectors where they live, stopping the abductors.

Treaty of Farixen

Due to the destructive potential of dreadnoughts, the Council races agreed at the Farixen Naval Conference to fix a ratio of dreadnought construction between themselves. At the top of pyramid is the peacekeeping Turian fleet. Below the Turians are the other Council races, currently the Asari and the Salarians. Council associate races are at the bottom. The Human Systems Alliance is part of this last group.

The ratio of Turian to Council to associate dreadnoughts is 5:3:1, for every dreadnought the Humans are permitted to build, the Asari have three, and the Turians five.

Turian Cabals

The Cabals are an elite biotic Turian unit whose dictum is “the intangible is unstoppable.” As Turian biotics are relatively rare, with biotic abilities manifesting in only a small percentage of element-zero exposed Turians, Cabals tend to be small and only comprised of 10 to 15 individuals led by a commanding officer called a kabalim.

A Turian Cabal is often deployed covertly as shock troops or saboteurs, or they’re sent on long reconnaissance missions for the Hierarchy. In addition to advanced biotic training, all Cabal soldiers are highly skilled in small arms, explosives, infiltration tactics, and piloting.

Centuries ago, during the Unification Wars, military black ops would recruit Turian biotics as infiltrators, planting them anonymously in the regular infantry as “observers” or using them as assassins. This historical practice has left a cultural bias against biotic soldiers among the Turian rank-and-file. As a result, the Turian Hierarchy prefers to keep its Cabals isolated from other branches of the military, citing “safety and unit cohesion concerns.” Even Turians whose biotic abilities are not combat-proficient are segregated into Cabals, often forcing them to cut short their promising careers in order to serve as a medic or maintenance officer. However, Cabal soldiers are professionals; those who do not adapt are quickly weeded out, resulting in strongly unified teams of experienced, deadly, biotic warriors who see their isolation as a necessary sacrifice to protect the Hierarchy.

The war with the Reapers means that the Turian Hierarchy no longer has luxury of keeping such powerful assets in reserve. Many Cabals have been recalled to Palaven, while the most experienced have been dispatched to the front lines for surgical strikes on Reaper strongholds or to provide support for regular infantry.

Turians

Roughly 1,200 years ago, the Turians were invited to join the Citadel Council to fulfill the role of galactic peacekeepers. The Turians have the largest fleet in Citadel space, and they make up the single largest portion of the Council's military forces.

As their territory and influence has spread, the Turians have come to rely on the Salarians for military intelligence and the Asari for diplomacy. Despite a somewhat colonial attitude towards the rest of the galaxy, the ruling Hierarchy understands they would lose more than they would gain if the other two races were ever removed.

Turians come from an autocratic society that values discipline and possesses a strong sense of personal and collective honor. There is lingering animosity between Turians and Humans over the First Contact War of 2157, which is known as the "Relay 314 Incident" to the Turians. Officially, however, the two species are allies and they enjoy civil, if cool, diplomatic relations

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Biology

The Turian homeworld, Palaven, has a metal-poor core, generating a weak magnetic field and allowing more solar radiation into the atmosphere. To deal with this, most forms of life on Palaven evolved some form of metallic "exoskeleton" to protect themselves. Their reflective plate-like skin makes Turians less susceptible to long-term, low-level radiation exposure, but they do not possess any sort of "natural armor". A Turian's thick skin does not stop projectiles and directed energy bolts.

Although life on Palaven is carbon-based and oxygen-breathing, it is built on dextro-amino acids. This places the Turians in a distinct minority on the galactic stage; the Quarians are the only other known sapient dextro-protein race. The food of Humans, Asari, or Salarians (who evolved in levo-amino

acid-based biospheres), will at best pass through Turian systems without providing any nutrition. At worst, it will trigger an allergic reaction that can be fatal if not immediately treated.

Culture

While Turians are individuals with personal desires, their instinct is to equate the self with the group, and set aside personal desires for the good of all.

Turians are taught to have a strong sense of personal accountability, the "Turian honor" that other races find so remarkable. Turians are taught to own every decision they make, good or ill. The worst sin they can make in the eyes of their people is to lie about their own actions. Turians who murder will try to get away with it, but if directly questioned, most will confess the crime.

Turians have a strong inclination towards public service and self-sacrifice, so they tend to be poor entrepreneurs. To compensate, they accepted the mercantile volus as a client race, offering protection in exchange for their fiscal expertise.

The Turian military is the center of their society. It is not just an armed force; it is the all-encompassing public works organization. The military police are also the civic police. The fire brigades serve the civilian population as well as military facilities. The corps of engineers builds and maintains spaceports, schools, water purification plants, and power stations. The merchant marine ensures that all worlds get needed resources.

Government

The Turian government is a hierarchical meritocracy. While it has great potential for misuse, this is tempered by the civic duty and personal responsibility Turians learn in childhood.

Turians have 27 citizenship tiers, beginning with civilians (client races and children). The initial period of military service is the second tier. Formal citizenship is conferred at the third tier, after boot camp. For client races, citizenship is granted after the individual musters out. Higher-ranked citizens are expected to lead and protect subordinates. Lower-ranking citizens are expected to obey and support superiors. Promotion to another tier of citizenship is based on the personal assessments of one's superiors and co-rankers.

Throughout their lives, Turians ascended to the higher tiers and are occasionally "demoted" to lower ones. The stigma associated with demotion lies not on the individual, but on those who promoted him when he wasn't ready for additional responsibility. This curbs the tendency to promote individuals into positions beyond their capabilities.

Settling into a role and rank is not considered stagnation. Turians value knowing one's own limitations more than being ambitious.

At the top are the Primarchs, who each rule a colonization cluster. The Primarchs vote on matters of national import. They otherwise maintain a "hands-off" policy, trusting the citizens on each level below them to do their jobs competently.

Turians enjoy broad freedoms. So long as one completes his duties, and does not prevent others from completing theirs, nothing is forbidden. For example, there are no laws against recreational drug use, but if someone is unable to complete his duties due to drug use, his superiors step in. Judicial proceedings are "interventions". Peers express their concern, and try to convince the offender to change. If rehabilitation fails, Turians have no qualms about sentencing dangerous individuals to life at hard labor for the state.

Military Doctrine

Although they lack the brutality of the Krogan, the skill of the Asari, and the

virtuosity of the Humans, the Turian military has formidable discipline. Officers and NCOs are “lifers” with years of field experience. Enlisted personnel are thoroughly trained and stay calm under fire. Turian units don’t break. Even if their entire line collapses, they fall back in order, setting ambushes as they go. A popular saying holds: “You will only see a Turian’s back once he’s dead.”

Boot camp begins on the 15th birthday. Soldiers receive a year of training before being assigned to a field unit; officers train for even longer. Most serve until the age of 30, at which point they become part of the Reserves. Even if they suffer injuries preventing front-line service, most do support work behind the lines.

Biotics are uncommon. While admired for their exacting skills, biotics’ motives are not always trusted by the common soldier. The Turians prefer to assign their biotics to specialist teams called Cabals.

Command and control is decentralized and flexible. Individual units can call for artillery and air support. They make extensive use of combat drones for light duties, and practice combined arms: infantry operates with armor, supported by overhead gunships. Strategically, they are methodical and patient, and dislike risky operations.

Tradition is important. Each legion has a full-time staff of historians who chronicle its battle honors in detail. The oldest have records dating back to the Turian Iron Age. If a legion is destroyed in battle, it is reconstituted rather than replaced.

The Turians recruit auxiliary units from conquered or absorbed minor races. Auxiliaries are generally light infantry or armored cavalry units that screen and support the main Turian formations. At the conclusion of their service in the Auxiliaries, recruits are granted Turian citizenship.

Religion

Although Turians have a strict moral code, their belief in individual responsibility means that the concepts of good and evil are simply the individual's choice between egotism and altruism in any given decision. They have no concept of "good" deities that encourage noble behavior or "evil" ones that tempt individuals to misdeeds.

Turians believe that groups and areas have "spirits" that transcend the individual. For example, a military unit would be considered to have a literal spirit that embodies the honor and courage it has displayed. A city's spirit reflects the accomplishments and industry of its residents. An ancient tree's spirit reflects the beauty and tranquility of the area it grows within.

These spirits are neither good nor evil, nor are they appealed to for intercession. Turians do not believe spirits can affect the world, but spirits can inspire the living. Prayers and rituals allow an individual to converse with a spirit for guidance or inspiration. For example a Turian who finds his loyalty tested may appeal to the spirit of his unit, hoping to reconnect with the pride and honor of the group. A Turian who wishes to create a work of art may attempt to connect with the spirit of a beautiful location.

Turians enjoy absolute freedom of religion and can practice whatever appeals to them so long as it does not impede anyone's ability to perform their duties. There are many practitioners of the Asari "Siarist" philosophy. Since opening dialog with the Human Systems Alliance, some Turians have embraced Confucianism and Zen Buddhism.

The Unification War

At about the time the Salarians and Asari were forming the Council, the Turians were embroiled in a bitter civil war. The Unification War, as it was later named, began with hostilities between the colonies furthest from the Turian homeworld, Palaven.

These colonies were run by local chieftains, many of whom had distanced themselves from the Hierarchy. Without the galvanizing influence of the

government, the colonies became increasingly isolated and xenophobic. Colonists began wearing emblems or facial markings to differentiate themselves from members of other colonies and open hostilities became common.

When war finally broke out, the Hierarchy maintained strict diplomacy and refused to get involved. After several years of fighting, less than a dozen factions remained and the Hierarchy finally intervened. By that time, the chieftains were too weak to resist; they were forced to put an end to fighting and renew their allegiance to the Hierarchy.

Though peace was restored, it took several decades for animosity between colonists to fade completely. To this day, most Turians still wear the facial markings of their home colonies. As a point of interest, the Turian term “barefaced” refers to one who is beguiling or not to be trusted. It is also a slang term for politicians.

Upgrades

The development of practical minifacturing omni-tools allows modern militaries a great deal of flexibility in equipment load-outs. A vast number of field modification kits, or “upgrades”, are available for common equipment such as weapons, armor, omni-tools, biotic amps, and even grenades.

An upgrade kit typically consists of less than a dozen unique parts and an optical storage disc. When loaded into an omni-tool, the OSD provides all technical specifications required to manufacture the tool and additional parts necessary to install the upgrade onto another piece of equipment. Assembly is typically modular, and installation can be completed in less than a minute.

Since omni-tools are designed to use common battlefield salvage materials such as plastics, ceramics, and light materials (rendered into semi-molten “omni-gel” for quick use), it is quite possible for a trained soldier carrying upgrade kits to customize gear on the battlefield to fit the current tactical situation.

Varren

Varren are omnivores with a preference for living prey. Originally native to the Krogan homeworld of Tuchanka, they are, like most life from Tuchanka, savage, clannish, and consummate survivors. They are pack hunters when vulnerable prey is readily available and become scavengers when outnumbered or outclassed.

Their supreme adaptability, vicious demeanor, and rapid breeding cycle have made them ubiquitous and dangerous pests on many worlds. Virtually everywhere the Krogan have been, varren infestations have followed, wreaking havoc with the native ecology.

The Krogan have had a love-hate relationship with varren for millennia, alternately fighting them for territory and embracing them as treasured companions. To this day, Krogan raise them as beasts of war. A common subgenus of varren has metallic silver scales, leading to the rather unusual nickname “fishdogs.”

Vehicles

A-61 Mantis Gunship

The workhorse of mercenary bands throughout the galaxy, the Mantis is a two-man, vectored-thrust aircraft that excels in close air support roles. Highly modular in construction, the Mantis can be reconfigured as a low-altitude gunship, a fighter, a high-altitude bomber, or even a single-stage-to-orbit spaceplane that can engage enemy craft around a planet or space station. The only role that the Mantis cannot perform is that of a true deep-space fighter, as it has no FTL drive.

First rolled off the assembly lines in 2170, the Mantis remains in service in dozens of armies across the galaxy. It is most commonly used as air support in pitched ground battles, in a configuration that sports two pods for Inferno PKRs (Precision Kill Rockets) and a chin-mounted M350 mass accelerator cannon. Its kinetic barriers, thermal decoy system, and electronic countermeasures suite make the Mantis far less vulnerable to surface-to-air attacks than previous generations of aircraft. Like most modern planes, the Mantis uses an element zero core to ease the load of the engines with a mass effect field, allowing it to take off vertically or hover in place using minimum fuel. This also gives it far greater range and speed than the helicopters and jump-jet aircraft that once filled its niche—a Mantis can take off from Baton Rouge, reach Moscow in a few hours, fly a ground attack mission, and return home before having to refuel.

M35 Mako

The “Mako” infantry fighting vehicle was designed for the System Alliance’s frigates. Though the interior is cramped, an M35 is small enough to be carried in the cargo bay and easily deployed on virtually any world.

With its turreted mass accelerator and coaxially-mounted machine gun, the Mako can provide a fire team with weapon support as well as mobility. Since Alliance marines may be required to fight on any world, the Mako is environmentally-sealed and equipped with microthrusters for use on low-gravity planetoids.

The Mako is powered by a sealed hydrogen-oxygen fuel cell, and includes a small element zero core. While not large enough to nullify the vehicle's mass, the core can reduce it enough to be safely air-dropped. When used in conjunction with the thrusters, it also allows the Mako to extricate itself from difficult terrain.

M-44 Hammerhead

The M-44 Hammerhead infantry fighting vehicle is a highly maneuverable mass-effect-assisted armored vehicle.

Using three solid-fuel rocket thrusters instead of wheels, the Hammerhead hovers over the battlefield at up to 120 kilometers per hour, allowing it to maintain formation with swift armored units, skim across calm water, and even leap terrain obstacles. Backup microboosters guarantee locomotion, so even destruction of two main thrusters leaves the vehicle capable of full mobility.

The Hammerhead retains most features of interplanetary fighting vehicles: an airtight interior, 360-degree kinetic barriers, and a guided missile system ensuring accuracy during even aggressive maneuvering. Its electronic countermeasures extend to laser detection, chaff, active thermal masking, and ground-penetrating weapons-sniffing radar.

The Hammerhead's navigation control emulates that of tanks, so tank drivers can operate Hammerheads without additional training. Factory-issue Hammerheads therefore have no altimeter or similar sensors and are best used at the standard cruising attitude: two meters off the ground.

UT-47 Kodiak “Drop-Shuttle”

The Systems Alliance UT-47 drop-shuttle landing craft holds 12 soldiers in a cramped, uncomfortable cargo bay and two more in the cockpit. Officially named the Kodiak, the drop-shuttle is better known to Alliance marines as the “combat cockroach” due to its appearance and durability.

The vehicle’s robust environmental sealant technology exposes few vulnerable parts to the elements. First tested in the sulfuric acid clouds and extreme temperatures of Venus, the Kodiak can land in hard vacuum, high pressure, and temperatures from near-absolute zero to over 900 degrees Celsius.

A true contragravitic vehicle, the Kodiak’s substantial element zero core allows flight by entirely countering the vehicle’s mass. Its small thrusters are for directional control only, so if the mass effect field fails, the vehicle becomes a proverbial “three-million-credit coffin.” The unarmed shuttle forgoes weaponry-space for active masking, electronic countermeasures, and a robust kinetic barrier system. It is ideal for dropping troops undetected.

Originally created to covertly insert Alliance marines into hostile environments, the UT-47 shuttle has since been sold to allies, recovered by enemies, and had its specifications stolen by spies. In one form or another, this durable transport is now used in all corners of the galaxy.

A-model Kodiaks feature a front-mounted mass-accelerator cannon that can be used in an antivehicular role. Since the shuttle lacks proper gun ports, soldiers often open the side hatch to fire on enemies. This is discouraged in Alliance manuals, since it exposes the interior to return fire.

Flying the 47A during atmospheric combat requires considerable skill. The pilot must reduce the vehicle’s mass for speed and handling, while maintaining enough mass to resist recoil, incoming fire, and inclement weather. More than one pilot had overstressed the Kodiak’s field generator and ended up on the battlefield instead of above it.

Volus

The volus are a member species of the Citadel with their own embassy, but they are also a client race of the Turians. Centuries ago, they were voluntarily absorbed into the Hierarchy, effectively trading their mercantile prowess for Turian military protection.

Irune, their homeworld, lies far beyond the normal life zone of its star. However, the world has a high-pressure greenhouse atmosphere that traps enough heat to support an ammonia-based biochemistry. As a result, the volus must wear pressure suits and breathers when dealing with other species as conventional nitrogen/oxygen air mixtures are poisonous to them, and in the low pressure atmospheres tolerable to most species, their flesh will actually split open.

Volus culture is tribal, bartering lands and even people to gain status. This culture of exchange inclines them to economic pursuits. It was the volus who authored the Unified Banking Act, and they continue to monitor and balance the Citadel economy.

Vorcha

Although they resemble a mammal-reptile cross, the vorcha have no terrestrial analogue. They are Humanoid in form, but vorcha have “clusters” of non-differentiated neoblast cells, like those of Earth’s planarian worms. Damaged vorcha cells mature into specialized structures to alleviate injury or stress. Transformations include thicker skin following injury, lung adaptation for barely-breathable atmospheres, and stronger cardio-skeletal muscle under high gravity. Skull capacity and brain size do not change, and vorcha rarely make more than one somatic overhaul.

Vorcha assault each other frequently, causing their young to gain strength, intelligence, and resilience. As a result, vorcha see inflicting and receiving pain as normal communication. Few vorcha study professions, in part because their average life expectancy is only 20 years. Because vorcha can eat and breathe nearly anything, they can live almost anywhere, but racism prevents them from integrating into most societies that dismiss them as vermin. They have few employment options beyond Krogan mercenary bands.

Yahg

The yahg are a race of massive apex predators from the world of Parnack whose rise to sentience in no way blunted their violent nature. A group of yahg is unable to cooperate until a single leader has been determined through either social maneuvering or brute force, but no grudges are held once a yahg establishes dominance. Former rivals serve their new superior's purpose with unflinching loyalty and relentless determination, a legacy of their origin as a pack species.

Their eight eyes are another sign of their hunter ancestry—all four pairs are geared toward tracking down and predicting the movements of prey. Sophisticated and keenly developed sensitivity to movement and light have made yahgs masters at reading body language, regardless of species. Much to their short-lived chagrin, the Council's first contact teams discovered it was nearly impossible to lie to the yahg.

The yahg had technology equivalent to 20th century Earth standards when they were discovered by the Council in 2125. The Council's ambassadors approached the yahg as friends and allies instead of subordinates, a baffling sign of contempt from newcomers on Parnack. The yahg attacked when it became apparent that the alien diplomats stubbornly considered themselves sovereign people instead of new underlings. Parnack remains off-limits by order of the Council, which fears that the yahg's size, aggression, and obsession with control make them poorly suited for integration into the galactic community.